THE

AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

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A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

TO OUR SUBSCRIBERS.

With this No. our Third Volume is brought to a close, and thus ends our editorial labors for the year 1844. It has been our study throughout to instruct and interest our readers, and how successful we have been in these endeavors we must leave for them to determine. The first number of Volume Fourth will be promptly issued on the 1st of January, 1845.

In continuing the American Agriculturist, we have few new pledges to give or promises to make, more, than it shall be conducted, as hitherto, with a single eye to the interests of the Farmer, Planter, Stock-Breeder, and Horticulturist, and the general advancement of agricultural science. We trust that we shall continue to be favored, as heretofore, by the contributions of our friends; for very much of the interest and usefulness of any agricultural periodical must depend mainly upon this. To many among the thousands who peruse this work, omething new is continually developing itself, which would be of more or less value to the public if communicated in our columns. Let our readers bear in mind, that periodicals of this kind seek not to accomplish the selfish ends of a mere party, but the welfare of the whole community; and whatever zeal and energy is exerted in their behalf, must necessarily contribute to the public good.

The Northern and Southern Calendars being now complete in this volume, we shall publish regularly in our next, a Calendar for the Southwest, written expressly for this journal, by that eminent agriculturist, the Hon. Adam Beatty of Kentucky. We shall also commence a Boys' Department, comprising about two pages per month, and if our friends will assist us in it, we shall be able to keep it up throughout the year, and thus render the work more acceptable to our youthful readers. We wish some one would volunteer to make us a Ladies' Department of the same amount of matter, for we feel totally inadequate to attempt anything of the kind—and yet the farmers' wives and daughters ought not to be neglected. In addition to the above, we shall be at greater expense than heretofore in illustrations of our work, designed expressly for it. We solicit sketches of anything new and useful in agriculture, which if not too expensive, we will get engraved and insert in our pages.

With these things in prospect before our readers, we trust that all subscriptions to the American Agriculturist will be promptly renewed. The terms,

it will be recollected, are cash *in advance*, which is the only thing that enables the publishers to go on with this periodical at the very cheap rate they do. Single copies, $1; three copies, $2; eight copies, $5. This last is the trifling sum of only 5 cents per month, for a highly useful work to the farmer and general reader, of 384 pages, beautifully illustrated. Who is so poor or so indifferent that he will not contribute so small a sum for his own benefit, and the cause of agriculture? The first three volumes handsomely and uniformly bound, constantly on hand for sale at $1 25 each. We think every library incomplete without a set of the American Agriculturist.

CARE OF YOUNG STOCK.

The first winter for young stock is the most trying one of their lives, and extra care should always be given to them, especially in their feed. In addition to what they will eat of the finest and best of the hay, lambs and calves should have a few roots daily, except in very cold weather. In feeding them be careful not to give so many as to scour them. It may be well also to feed the lambs a gill each per day of beans, peas, oats, or corn, which are preferred in the order mentioned. For calves, shorts or bran is preferable to grain. Colts ought to have 2 quarts of oats per day, except occasionally changing this feed to 3 quarts of bran. Oil meal is most excellent food in small quantities for all sorts of stock, especially calves and pigs. It keeps the bowels free and healthy, and makes them eat their other food with a greater relish. For shelter, we prefer open sheds for young stock to close stables, except in very snowy weather. A roomy yard, well protected from winds, should always be attached for exercise, of which they are more fond than older animals, and it is more necessary for them. Another thing which is greatly disregarded; young stock ought always to be sheltered by themselves; they thus escape injury from those more grown, and have a fair chance at their food. Colts must not stand upon a plank floor, or indeed a hard footing of any kind, the first winter; if they do, it is apt to give them the ring-bone. Their pastern joints are disproportionably weak during the first year, which makes an elastic footing requisite for them.

REMEDY FOR ROT IN POTATOES.

A friend calling upon us a few days since, in the course of conversation gave us the following account of his method of saving his potatoes from the rot: During the last two years I have examined numerous potato fields, and invariably found the vines early in the season completely covered with a species of flea; at a late period the tops of the same vines appeared brown prematurely. On cutting them open I discovered a small insect, having numerous legs, and I think they sucked the sap which should have gone to the nourishment of the tubers, and the rot consequently ensued.

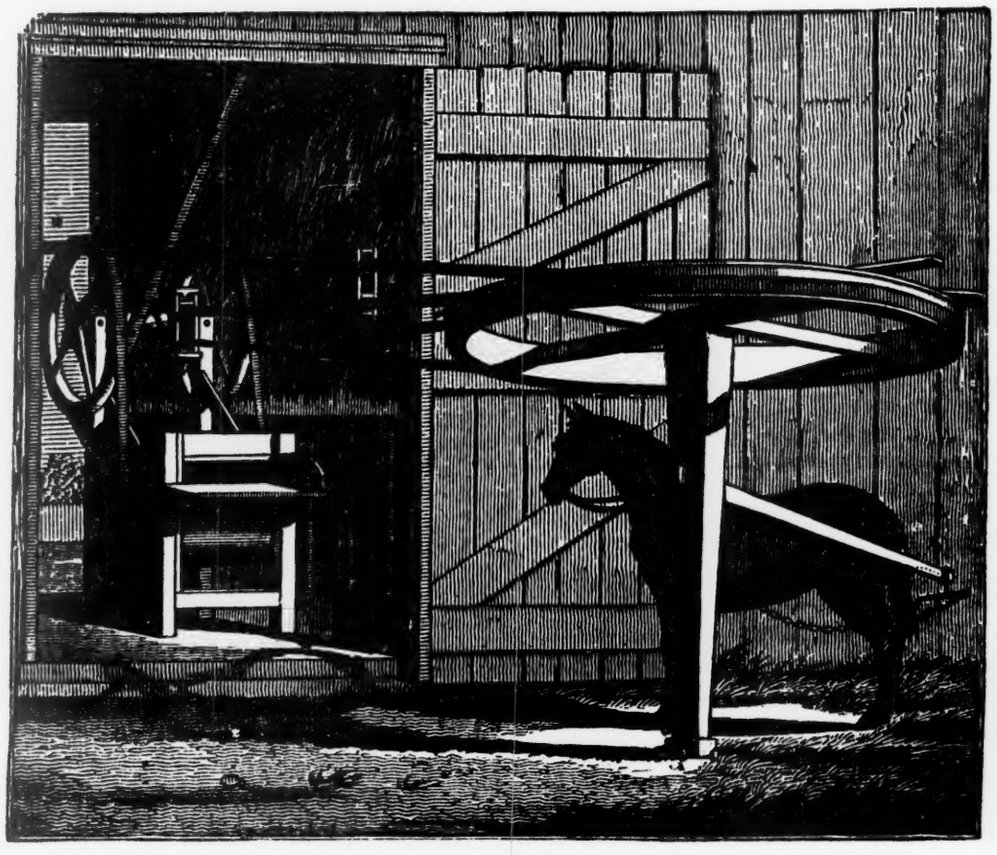
In the year 1843 I planted a field of several acres in drills, harrowed the ground level, and top dressed it with lime and charcoal dust. The yield was 432 bushels per acre; at the same time the potatoes throughout the neighborhood were decayed. This year I planted the same seed in the following manner: The ground was thrown into drills, and manured heavily; the potatoes were cut into sets of single eyes fourteen days before required for planting, and covered with plaster and lime; they were then placed in the drill, 9 inches apart, tops, centres, and ends separately, to mark the difference in growth; and each alternate three rows then covered with different substances, such as lime, sulphate of ammonia, silicate of potash, &c. When dug, they were all sound except a few rows on which nothing had been used but the manure, and these were decayed, although received only three weeks before planting directly from France. The only reason that I can give why my potatoes have escaped the rot is, that the above substances used in dressing them were offensive to the insect.

THE HAND FLOWER—Fig. 65.

The hand flower (*chiranthodendron pentadactylon*) is a native of Mexico. The trees which produce it are rare, and it is remarkable, says Mayer, principally for its brilliant tints, and the claw which protrudes from its thorny cup like that of a five-toed bird.

CHEAP HORSE-POWER.

We have been obligingly favored by one of the editors of the New York Central Farmer, with the cut below of a horse-power and thresher, and copy his description of the same from this work. Its cheapness and simplicity especially commend it to the south; we think where a light power only is wanted, that it would be as serviceable as any; and there is this further advantage in the machine, it can be made by the planters on their own premises.



CHEAP HORSE-POWER AND THRESHER.—FIG. 66.

"This horse power is the invention of Mr. John Shaw, of Augusta, Maine. It is nothing but a wheel and strap, consequently not liable to get disordered. The wheel we saw was only twelve feet in diameter; the shaft about eight feet long, standing in a post set firmly in the ground, which received a pivot from the end of the shaft. The upper part was supported by two braces, one end secured to the timbers of the barn, and the other crossing and receiving a gudgeon in the top of the shaft. The rim of the wheel was about six inches wide for the belt. A lever seven feet in length was let into the shaft, to which the horse was attached. The whole concern is very simple and well represented by the above cut.

"We have seen one of these powers in operation, for propelling a cutting machine, and it seemed to be well adapted for that purpose. As to its power for threshing, we have some doubts, unless two horses were attached. As the machine embraces no complicated gearing, but doing the whole with a wheel and strap, it certainly appears less liable to be put out of order; and what is a farther recommendation, we believe they can be erected at a less expense than any other machine.

"As it is much on the same principle as the common hoisting wheels used in storehouses, we would suggest that by cutting a groove or inserting crotched irons in the rim of the wheel, a rope may be substituted in place of the strap, by which a saving may be made, and possibly work as well. It is so simple that any carpenter or ingenious hand on the farm may construct one."

IMPROVEMENTS IN SUGAR-MAKING.

WE find in some of the late numbers of Simmonds' Colonial Magazine, that a patent has been taken out for the application of hydraulic pressure in extracting the juice from the cane. Two presses, each capable of bearing a strain of 1,400 tons, are worked alternately by one set of pumps, which pumps may be worked either by manual labor, by means of double-ended lever handles, or, where manual labor is scarce, by two mules, or by a small steam-engine of two-horse power. These presses are calculated to turn out about 6,000 gallons of cane juice per day of ten hours, which is more than can be effected by a roller-mill, even when driven by a steam-engine of twelve or fourteen horse power.

The advantages of this system of hydraulic pressure are stated to be: 1. The juice in the cane (generally 18 per cent. by weight of saccharine matter) can be wholly extracted, thereby saving about eight parts now left in the megass. 2. The juice can be rapidly filtered when cold as discharged from the mill, or hydraulic-press; if by the latter it should be needful. 3. The tempering can be effected properly and uniformly. 4. The juice can be defecated promptly as it runs from the mill, hydraulic-press, or filter, thereby avoiding the deteriorating effects produced by remaining in receivers. 5. The cleansing and evaporating of the defecated liquor (rendered purer by previous operations) can be effected in steam-pans, without discharging from one into the other. 6. The evaporated syrup may be decolored and filtered through

animal charcoal, which can be revivified on the estate. 7. The final concentration of the syrup can be more rapidly accomplished than by the present mode, in an open pan or teache, at the low temperature of 170° to 180° Fahrenheit, or at about 80° to 100° below the usual temperature of the strike when boiled by the common method. 8. The concentrated mass can be properly crystallised and effectually cured, and the potting avoided by the use of vessels into which the strikes are discharged consecutively, and the sugar so cured will not drain during the voyage. 9. The molasses can be converted into sugar nearly equal to that of the first production; and sugar can also be made of quality in all respects as muscovado (and by this peculiar method only) from the molasses that drain from the sugar of the second quality. 10. The megass may be used for manure, if the various operations are performed by the agency of steam. 11. The machinery, apparatus, &c., are simple in their construction and management, and much less costly than others.

PREMIUMS

Awarded at the Seventeenth Annual Show and Fair of the American Institute, October, 1844.

Horses.

Stallions.—A. Redewald, New York, for the best stud horse—silver cup, $15. Samuel Mott, Jamaica, L. I., for the second best stud horse (rising Sun)—silver medal. William Salisbury, Catskill, Green Co., N. Y., for a stud horse (Diomed)—diploma. John Jackson, for a bay horse (Membrino)—diploma. Jesse Vliet, New York, for a bay horse (Young Top Gallant)—diploma. Ezrahiah Wetmore, Rye, N. Y., for a stud horse (Marshal Ney)—diploma. Edward Harris, N. J., for the Norman horse (Diligence)—silver medal.

Brood Mares.—Albert Emmons, Flatlands, N. Y., for the best brood mare, silver cup, $15. Henry I. Seaman, Staten Island, for the second best brood mare—silver medal. John S. Roulston, New York, for the black mare (Lady of the Lake)—diploma.

Colts.—George M. Patchen, Brooklyn, for the best colt—silver cup, $8. Anthony Davison, Rockland, Queens Co., N. Y., for a sorrel colt—diploma. Shepherd Knapp, N. Y., for a well matched pair of carriage horses—silver medal. Ray Tompkins, Westchester Co., N. Y., for a pair of horses—diploma.

Mules.

Abraham Van Siclen, Jamaica, L. I., for the best pair of mules—silver cup, $10. Joseph Drake, De Kay, New York, for the best jenny (Kit)—diploma.

Improved Breeds of Cattle.

Bulls two years old and upward.—George M. Woolsey, Hell Gate, N. Y., for the best Durham bull (Jupiter)—silver cup, $15. Robert Bolton, jr., Eastchester, N. Y., for the best Devon bull (Dudley) silver cup, $15.

Bulls one year old and upward.—Thomas Oliver, Riversdale, N. Y., for the best Durham yearling bull (Marius)—silver cup, $10.

Bull Calves.—Wm. Whiting, Morristown, N. J., for the best Durham bull calf—silver medal.

Cows.—Thos. Bell, Randall's Island, for the best Durham cow (Shakeress)—silver cup, $15. R. S. Griswold, Lyme, Conn., for the best Ayreshire cow (Lady Rose)—silver cup, $16.

Heifers.—Thomas Bell, Randall's Island, for the best Durham heifer—silver cup, $8. Robert Bolton, Jr., Eastchester, N. Y., for the best Devon heifer—silver cup, $8. R. S. Griswold, Lyme, Conn., for the best Ayreshire heifer—silver cup, $8.

Native Cattle.

Thomas Bell, Randall's Island, for the best native bull (Alderman)—silver cup, $15. James Patton, New Windsor, N. Y., for the best bull calf—silver medal. Joseph Clowes, Jersey City, for the best native cow—silver cup, $10. Charles Bathgate, Jr., Morrisania, N. Y., for the second best native cow—silver medal. Joseph Clowes, Jersey City, for the best native heifer—silver medal. George Chesterman, Harlem, N. Y., for the best heifer calf—silver medal.

Working Cattle.

David Beecher, Huntingdon, Conn., for the best pair of working oxen—silver cup, $15, and an extra premium, $10. Eli Dickerman, Hamden, Conn., for the second best pair of working oxen—silver medal, and an extra premium, $10. John B. Davis, Derby, Conn., for a superior pair of working oxen—diploma, and an extra premium, $10. L. H. Wheaton, Madison, Conn., for a superior pair of working oxen—diploma, and an extra premium, $10. Josiah Purdy, Jr., Rye, Westchester Co., N. Y.; John Brewster, English Neighborhood, N. J.; Abner House, Bellevue, N. Y.; for five pair of working oxen—extra premium of $10 to each pair.

Sheep—Long Wools.

Charles Bathgate, Westchester Co., N. Y., for the best long wool buck (Leicester breed)—silver cup, $8. Thomas Bell, Randall's Island, for the best long wool ewe (Leicester breed)—silver cup, $8. John Brewster, English Neighborhood, N. J., for the best long wool lamb (Leicester breed)—silver medal. Obadiah Elliott, Middleham, N. J., for the best middle wool buck (Southdown)—silver cup, $8. John Beatty, Morris Co., N. J., for the best middle wool ewe (Bakewell)—silver cup, $8. Benjamin Florence, Mamaroneck, N. Y., for the best wether—silver cup, $8. Robert Bolton, Jr., Eastchester, N. Y., for a superior Southdown buck and four lambs—silver medal.

Swine.

Benjamin H. Hart, Poughkeepsie, for the best Berkshire boar—silver cup, $8. Myndert Van Schaick, New York, for the second best boar—diploma. William Burnham, New York, for the best sow (half Berkshire)—silver cup, $8. William McLinchy, Yorkville, for the second best sow—diploma. Elijah Ryder, Sing Sing, for the best shoat—silver medal. Samuel Love, New York, for two very fine fat hogs—silver medal.

Farms.

Jeremiah Johnson, Wallabout, L. I., for his market garden farm—silver medal. Thomas Bell, Randall's Island, N. Y. for his farm—silver medal.

Plowing.

John Rae, West Farms, Westchester Co., for the best plowing of one eighth of an acre (time, 30 minutes)—silver cup.

MANAGEMENT OF POULTRY.

Poultry are subject to a variety of diseases, but nearly all of a serious nature are attributable to the effects of climate or want of care or skill. Pip is caused by a want of clean water, or by drinking dirty water in dry weather. Cure—remove the white blister found upon the tongue, and wash it with warm vinegar and water—feeding the bird

for a few days with soaked bran and lettuce, or cabbage chopped very fine.

Flux is cured by pills of the yolk of an egg boiled hard, mixed with bruised hemp seed, or boiled barley diluted with wine.

Costiveness, the reverse of the former, is cured by giving them beet root chopped fine or bran and water with a little honey mixed.

Vermin may be destroyed by fumigating the roots with brimstone.

Scab and itch are cured by feeding them with moist bran.

Cramp is caused by cold and damp. When afflicted, the birds should not be allowed to roost out of doors, and the roost should be well secured and warm—rub the legs and feet with a little fresh butter.

Abscess frequently comes upon the rump, and is caused by heat of blood, or torpid stomach, which corrupts the mass of blood. Open the abscess and press out the matter. Feed them with chopped beet root or lettuce, with some bran mixed, moistened with honey, or molasses and water.

Fowls should not be allowed to roost in very large numbers together, but where great quantities are raised, they should be kept in flocks of not more than one hundred. They should be kept very cleanly.

Warmth, with freedom from damp, is the great secret in the care of fowls. Their food should be frequently changed, and green food often mixed with their meal, shorts, or bran. Indian meal and molasses and water will fatten poultry faster than any other food. Cinders should be sifted for them to roll in, which will free them from vermin, and they should never be without a supply of clean water for drinking.

Never give them warm or hot food, which causes them to become crop bound. Hemp and buckwheat, or wheat occasionally, are good stimulants.

So far as food is concerned, every farmer's wife throughout the country knows what is proper. One great danger arises from their voracity of appetite inducing them to eat too much of food too nutritious for their delicate digestive organs, whereby they become sickly, or what is commonly called crop bound. Simple as the remedy for this evil may appear, it is somewhat difficult to put in practice where large numbers are fed together.

As regards attention to cleanliness, and their other common wants, such as regularity of feeding, and an abundant supply of pure water, nothing need be said; they can scarcely live, certainly not flourish, without these necessary requirements being strictly attended to.

Under, however, the best management, and the greatest precautions used against their various ailments, many will perish. It is a truth, however, that almost all the diseases of poultry arise from atmospheric causes.

With respect to medical treatment, applied to the diseases of poultry, but little regarding its efficacy is known. The nostrums and mode of treatment adopted throughout the country, together with the greater part of what has been written upon the subject, is a farrago of nonsense and absurdity. If shelter, warmth, food, and cleanliness, congenial to their habits, will not preserve them in health, but little reliance can be placed upon medicine.

Great care is necessary to protect poultry from the ravages of the skunk, the muskrat, the fox, and other animals, who possess a taste so refined as to prefer chicken to coarser food. And to insure complete success on a large scale, suitable buildings should be provided.

A close room, which should be made to exclude the wintry frosts, and also admit the balmy breeze of summer, should be provided for the machines, and should be kept as an eccaleobion hall. From this hall passages should lead to other rooms less tight and substantial, and many of them provided with roosts. As the birds grow they should by degrees be moved along, until after six weeks, or thereabouts, they will have an open yard with roosting places under a shed. In this manner, by keeping them in flocks of one or two hundred, and changing their roosting places frequently, by keeping them clean, &c., there will be no difficulty in raising any number per annum, provided no old fowls are kept on the premises. With suitable conveniencies there will be less trouble in raising one hundred thousand a year, than in raising one hundred without them.

To a successful rearing, therefore, of a large number of birds by artificial means, the only required essentials are, a sufficient number of these machines; suitable buildings; warmth and protection from dampness; proper food: and a careful attention to cleanliness in all respects. An establishment so constructed and so conducted can not fail to pay an immense profit to its proprietor.

The best food for chickens until three or four days old is eggs, either stale or fresh, boiled hard and cut into very small pieces. After which, meal wet up, and hommony dry. As they grow older, the feed should be varied, and they should have more or less green food, like lettuce, cabbage, endive, &c., chopped fine, and mixed with their meal; and loppered milk and bonny-clabber is most excellent. Cold boiled potatoes, fresh meat, crusts of bread soaked, and many other things usually thrown to the pigs, are excellent and profitable food for all kinds of gallinaceous fowl.—MICKLE'S TREATISE ON POULTRY.

CULTURE OF MADDER.

THE quantity of madder consumed annually in the United States, and imported from abroad, is perfectly astonishing to those who have given no attention to the subject. Unfortunately, our public records do not give very exact information on the subject; but Mr. Ellsworth, as the nearest approximation he could obtain, gives the amount as *five thousand tons!* Estimating this at the low average price of ten cents per pound, it makes the round sum of *one million of dollars* paid annually to foreign countries for an article that can be produced as good and as cheap at home—paid, too, by a people loaded down with indebtedness, and disgraced by the forfeiture of plighted obligations!

The cultivation of madder has heretofore been represented as a tedious and laborious operation

requiring much care and skill, as well as outlay of capital. The directions have been mainly gathered from foreign works, detailing the methods practised by the plodding Dutch in Holland and Germany. These accounts have appeared so frightful to Americans, that none of them have dared to undertake the business; and Yankee enterprise and labor-saving ingenuity have never been exercised upon it.

It is true, the crop requires three or four years to arrive at maturity, and needs considerable labor and some knowledge; but the quantity of land it occupies, and the amount of labor it requires, is far less in proportion to the value of the crop than those of any other farm crop that can be named.

These assertions are fully corroborated by the experience of an enterprising American farmer, Mr. Joseph Swift, of Erie county, Ohio, who has been engaged in the culture of madder for five years past. After having informed himself on the subject, and becoming satisfied that the business was practicable and profitable, he at once planted *nine acres*—a quantity that would astonish Mynheer Van Hollander. This he allowed to grow four seasons, and the crop was harvested and sold in the fall of 1842. The following are some of the results of his experience. The *product* of his best land was at the rate of 2,000 lbs. per acre; and he is certain that, with his present knowledge, he can obtain 3,000 lbs. per acre—which is more than the best average crops of Holland or Germany. The *quality* was superior to the average of imported madder.

Amount, Cost, and Value of Product.—The labor required, including the whole time, with the digging, cleaning, threshing, &c., was from eighty to one hundred days' work per acre. The outlay for buildings, fixtures, &c., did not exceed, in all, fifty dollars. The value of the crop was at the rate of fifteen cents per pound, at which price he sold most of it—notwithstanding the circumstance of its being unknown to purchasers, and all the prejudice that usually exists in such cases. The result, then, in figures, fairly stated, stands thus, for an acre of good land properly managed:

By 2,000 lbs. of madder, at 15 cts. per lb.		$300 00
Contra—To 100 days' work, mostly boys, at 75 cts. per day,	$75 00	
Use of land, 4 yrs., at $4 per year,	16 00	
Grinding, packing, &c.,	9 00	
		100 00
Leaving a net profit per acre of		$200 00

Mr. Swift was one of the earliest settlers of that section of the country, having resided nearly thirty years on the farm he now occupies, which consists of about 400 acres of choice land, mostly alluvial, in the valley of the Vermillion river, seven miles from Lake Erie. At my request, he furnished me with the following practical directions for the cultivation of madder, which he remarked must be understood as intended for those who wish to cultivate only a few acres, and can not afford much outlay of capital. Those who wish to engage in the business on an extensive scale, would need to adopt a somewnat different practice:

Soil and Preparation.—The soil should be a deep, rich, sandy loam, free from weeds, roots, stones, &c., and containing a good portion of vegetable earth. Alluvial bottom land is the most suitable; but it must not be wet. If old upland is used, it should receive a heavy coating of vegetable earth, (from decayed wood and leaves.) The land should be plowed very deep in the fall, and early in the spring apply about one hundred loads of well rotted manure per acre, spread evenly, and plowed in deeply; then harrow till quite fine and free from lumps. Next, plow the land into beds four feet wide, leaving alleys between, three feet wide, then harrow the beds with a fine light harrow, or rake them by hand so as to leave them smooth, and even with the alleys; they are then ready for planting.

Preparing Sets and Planting.—Madder sets, or seed roots, are best selected when the crop is dug in the fall. The horizontal uppermost roots (with eyes) are the kind to be used; these should be separated from the bottom roots, and buried in sand, in a cellar or pit. If not done in the fall, the sets may be dug early in the spring, before they begin to sprout. They should be cut or broken into pieces, containing from two to five eyes each; *i. e.* three to four inches long. The time for planting is as early in spring as the ground can be got in good order, and severe frosts are over, which, in this climate, is usually about the middle of April. With the beds prepared as directed, stretch a line lengthwise the bed, and with the corner of a hoe make a drill two inches deep along each edge and down the middle, so as to give three rows to each bed, about two feet apart. Into these drills drop the sets, ten inches apart, covering them two inches deep. Eight or ten bushels of sets are requisite for an acre.

After Culture.—As soon as the madder plants can be seen, the ground should be carefully hoed, so as to destroy the weeds and not injure the plants; and the hoeing and weeding must be repeated as often as weeds make their appearance. If any of the sets have failed to grow, the vacancies should be filled by taking up parts of the strongest roots and transplanting them; this is best done in June. As soon as the madder plants are ten or twelve inches high, the tops are to be bent down on to the surface of the ground, and all except the tip end, covered with earth shoveled from the middle of the alleys. Bend the shoots outward and inward, in every direction, so as in time to fill all the vacant space on the beds, and about one foot on each side. After the first time covering, repeat the weeding when necessary, and run a single horse plow through the alleys several times to keep the earth clean and mellow. As soon as the plants again become ten or twelve inches high, bend down and cover them as before, repeating the operation as often as necessary, which is commonly three times the first season. The last time may be as late as September, or later if no frosts occur. By covering the tops in this manner, they change to roots, and the design is to fill the ground as full of roots as possible. When the vacant spaces are

all full, there will be but little chance for weeds to grow; but all that appear must be pulled out.

The second year.—Keep the beds free from weeds; plow the alleys and cover the tops, as before directed, two or three times during the season. The alleys will now form deep and narrow ditches, and if it becomes difficult to obtain good earth for covering the tops, that operation may be omitted after the second time this season. Care should be taken, when covering the tops, to keep the edges of the beds as high as the middle; otherwise the water from heavy showers will run off, and the crop suffer from drought.

The third year.—Very little labor or attention is required. The plants will now cover the whole ground. If any weeds are seen, they must be pulled out; otherwise their roots will cause trouble when harvesting the madder. The crop is sometimes dug the third year; and if the soil and cultivation have been good, and the seasons warm and favorable, the madder will be of good quality; but generally, it is much better in quality, and more in quantity, when left until the fourth year.

Digging and Harvesting.—This should be done between the 20th of August and the 20th of September. Take a sharp shovel or shovels, and cut off and remove the tops with half an inch of the surface of the earth; then take a plow of the largest size, with a sharp coulter and a double team, and plow a furrow outward, beam deep, around the edge of the bed; stir the earth with forks, and carefully pick out all the roots, removing the earth from the bottom of the furrow; then plow another furrow beam-deep, as before, and pick over and remove the earth in the same manner; thus proceeding until the whole is completed.

Washing and Drying.—As soon as possible after digging, take the roots to some running stream to be washed. If there is no running stream convenient, it can be done at a pump. Take large, round sieves, 2½ or 3 feet in diameter, with the wire about as fine as wheat sieves; or if these can not be had, get from a hardware store sufficient screen-wire of the right fineness, and make frames or boxes about two and a half feet long and the width of the wire, on the bottom of which nail the wire. In these sieves or boxes, put half a bushel of roots at a time and stir them about in the water, pulling the bunches apart so as to wash them clean; then, having a platform at hand, lay them on it to dry. (To make the platform, take two or three common boards, so as to be about four feet in width, and nail cleets across the under side.) On these spread the roots about two inches thick for drying in the sun. Carry the platforms to a convenient place, not far from the house, and place them side by side, in rows east and west, and with their ends north and south, leaving room to walk between the rows. Elevate the south ends of the platforms about eighteen inches, and the north ends about six inches from the ground, putting poles or sticks to support them—this will greatly facilitate drying. After the second or third day drying, the madder must be protected from the dews at night, and from rain, by placing the platforms one upon another to a convenient height, and covering the uppermost one with boards. Spread them out again in the morning, or as soon as the danger is over. Five or six days of ordinarily fine weather will dry the madder sufficiently, when it may be put away till it is convenient to kiln-dry and grind it.

Kiln-drying.—The size and mode of constructing the kiln may be varied to suit circumstances. The following is a very cheap plan, and sufficient to dry one ton of roots at a time. Place four strong posts in the ground, twelve feet apart one way, and eighteen the other; the front two fourteen feet high, and the others eighteen; put girts across the bottom, middle and top; and nail boards perpendicularly on the outside as for a common barn. The boards must be well-seasoned, and all cracks or holes should be plastered or otherwise stopped up. Make a shed-roof of common boards. In the inside, put upright standards about five feet apart, with cross-pieces, to support the scaffolding. The first cross-pieces to be four feet from the floor; the next two feet higher, and so on to the top. On these cross-pieces, lay small poles about six feet long and two inches thick, four or five inches apart. On these scaffolds the madder is to be spread nine inches thick. A floor is laid at the bottom, to keep all dry and clean. When the kiln is filled, take six or eight small kettles or hand-furnaces, and place them four or five feet apart on the floor, (first securing it from fire with bricks or stones,) and make fires in them with charcoal, being careful not to make any of the fires so large as to scorch the madder over them. A person must be in constant attendance to watch and replenish the fires. The heat will ascend through the whole, and in ten or twelve hours it will all be sufficiently dried, which is known by its becoming brittle like pipe stems.

Breaking and Grinding.—Immediately after being dried, the madder must be taken to the barn and threshed with flails, or broken by machinery, (a mill might easily be constructed for this purpose,) so that it will feed in a common grist-mill. If it is not broken and ground immediately, it will gather dampness so as to prevent its grinding freely. Any common grist-mill can grind madder properly. When ground finely it is fit for use, and may be packed in barrels like flour for market.

If any person desires instruction for making several qualities of madder, or further information respecting any other point, it may be obtained by addressing, post-paid, Joseph Swift, Birmingham, Erie county, Ohio.

M. B. Bateham.

The above article is taken from the Transactions of the New York State Agricultural Society, and shows how easily madder can be cultivated. If Mr. Swift be not too sanguine in his calculations, it is certainly a very profitable crop. We ought not to import a single pound four years hence, and need not, if our farmers will take hold of the business as they ought to, as low as other agricultural products are. For a series of valuable articles on this subject, from the pen of one of our own correspondents, Mr. Partridge, see vol. ii., pp. 53, 77, and 115 of American Agriculturist.

ARE ROTATIONS OF CROPS NECESSARY?

THEY are, in many instances, a convenient and economical system of farming, but in none are they absolutely essential to successful cultivation.

Chemical analysis in regard to plants, has advanced thus far in its investigation, that it has placed within our knowledge, beyond the possibility of doubt or contradiction, *all the elements* that are necessary to their perfect development. We can now, by the aid of this subtle science, take to pieces the several portions of a plant, as the mechanic or builder can separate the different parts of his machine or building, and assort and measure them, and estimate the exact proportions which are essential to its perfection; while even a superficial acquaintance with botany and practical farming, enables us to determine what are the necessary requisites to their reformation under the controlling influence of nature. Whatever substances have not been formed under the laws of vitality, may not only be separated, but recombined by the man of science; but wherever the mysterious principle of *life* has once impressed its seal, no art of man can imitate the operation. The Deity has chosen to limit the successful efforts of human investigation on the very threshold of his own peculiar sphere. "Thus far—and no farther," is the incontrovertible fiat, to which the highest intelligence, when under the control of reason, will find its duty equally with its interests to consist. The study of Nature's laws, not the imitation of her vital operations, is the legitimate object of finite intelligence. Happily, we have, within the well-defined limits of human research, depths enough to fathom and explore, to busy the profoundest intellect while hemmed in by this mould of clay; and it is a pleasing and should be a satisfactory consideration, that those pursuits, which contribute to the melioration of our present condition, and most effectually minister to the wants of humanity, are among the most useful and attractive, as they are among the most recondite studies that can occupy the mind of genius. But we are wandering. If we ascertain the exact quantity of each constituent of the soil extracted by any given crop, which is always susceptible of estimate, we know precisely what is essential to be added to enable it again to yield a similar one. It was customary among many of the ancients, and especially the Greeks and Romans, to raise the same crops on the same ground for successive generations, a practice which has descended to the best agriculturists, even to within a few years. But this management required the adoption of the wasteful fallow system, by which, generally, every alternate year was required for the soil so far to recover itself as to be enabled to renew its accustomed yield. The present generation of enlightened farmers adopt the wiser and more economical method of rotation, which, without any waste of time or season, insures the same result.

The rationale of the fallow system is, that any given crop takes from the soil certain of its fixed or mineral constituents, as potash, soda, lime, the silicates, phosphates, &c.; and that these exist only to a limited extent, even in the most fertile soils, in a condition to be taken up by the growing plant; that is, that although there may be one hundred, or one thousand times as much of each as is required for immediate use, yet they may be so combined with each other, as not to be available for the same species of crop, except at intervals of one, two, or more years. By allowing the land a rest, as in fallow, the chemical action of the atmosphere, and dews and rains upon the materials of the soil, liberates an additional quantity of them, sufficient for the supply of another crop, after a sufficient time, even without the aid of manure.

The substitution of a system of rotation for fallow, combines the same object with superior economy; for by alternating roots, the leguminosæ, clover, and the grasses with the white or grain crops, they appropriate from the soil the same materials in part, but in such different proportions as to be fully supplied with what is essential to them, while the former crop, if on the ground, might have been starved for the want of a single ingredient in sufficient quantity to give the plant full maturity. Some soils are found to sustain a much shorter rotation for grain than others, owing to the greater abundance of lime and silicate of potash, &c., contained in them. Thus, all volcanic soils, such as are found in the island of Sicily and the neighborhood of Vesuvius, afford, after a very short respite, sufficient pabulum, without the aid of manure, to furnish another crop; and from this cause, the former, from a period anterior to Roman history, has been called the granary of the Mediterranean. Such soils also, as are annually overflown by streams, bearing in their turbid waters, not only the organic manures, but are charged, in addition, with the inorganic, or salts in solution, which are plentifully deposited on the expanded surface, are thus rendered capable for ever of yielding abundant crops of grain. Such are the Nile and Ganges, whose banks, since the subsidence of Noah's flood, have borne large annual burthens of the same exhausting crops; and such, too, will prove the bottom-lands of American streams, which are submerged by annual freshets, highly charged with the same materials. A similar effect is measurably produced by irrigation, when the water is strongly impregnated with beneficial salts.

But in nearly all cases, however rich the soil when first subjected to tillage, an annual supply of the salts or inorganic matter equivalent to what is abstracted from the soil by crops, or drainage, (which last is frequently a large item, though little perceptible, except in its effects,) is necessary to be added, to maintain a high state of productiveness. A slow disintegration and solution of the earthy salts is constantly going on in soils subject to cultivation, which yield the crops a supply as fast as prepared. But some soils do not furnish all the constituents in sufficient quantities for the demand of the plants, some being deficient in lime, some in potash, some in soda, some in the phosphates, &c. It would be well, and doubtless the most economical mode wherever attainable, to subject soils to analyses, and by learning its deficiencies, the right materials could be added with-

out the expense of applying various items, some of which, might, for the time, be entirely superfluous; and where an analysis could not be conveniently made, experiments on a small scale, even on a single rod, might give the desired information.

There is no doubt, that while every substance found in a plant is equally necessary to its perfection in all cases, (after providing for the few instances of *substitution* in some of them, as of soda for potash, and the like,) yet there is not an equal necessity for their being found in the soil. Thus, while the mineral or earthy portion of plants (although usually constituting about one fortieth of the whole) are indispensable to plants, and can not be obtained by them unless in the soil and within reach of the roots; yet the organic, as carbon, oxygen, hydrogen, and nitrogen, may be, and unquestionably are, drawn in large quantity from the atmosphere and rains and dews, and this effect is generally in proportion to the judicious arrangement and proper combination of the inorganic materials of the soil. Experiments have proved this position beyond cavil, as an artificial soil, formed of pure silicious sand, with the sole addition of the mineral ingredients of the plant, with a supply of air and water, has been found entirely adequate to mature it. But at the same time that we may readily acknowledge the success of such experiments, and are aware from numerous observations, that the atmosphere is the ever-abundant storehouse for the supply of a large portion of the substances of plants, experience teaches us with equal certainty, that the addition of these materials to the soils in putrescent and other manures, muck, &c., is of the highest advantage to the speedy maturity and fullest development of vegetables, and consequently it is of the greatest interest to the farmer that they be adequately furnished to the plant in the soil.

When the proper measure of fertility is acquired for any given crop, we see no reason, and can conceive of none, why the same process of cultivation, the same quality of seed, and the same or equally favorable seasons, should not produce an equal amount of crop, *provided the same materials, and in equal proportions, which furnished the last, are again intimately blended with the soil.* We might then open an account current with a field, and charge all the materials added, and credit the *ultimate constituents* of the crop taken off, adding sufficient for drainage, and, if necessary, the escape by evaporation, and we should always be sure of sustaining the full measure of its highest condition of fertility, *and this, too, for any one crop, a thousand times successively repeated.* We can see, indeed, a remote exception to this rule, in a soil so long cultivated, that its *mechanical structure* has become so altered by constant tillage, and the coarser particles of the soil, having become so thoroughly comminuted or broken down by the chemical action of the roots of vegetation and their disposing influences upon the various materials constituting the soils, that it would be necessary to add portions of a less constantly cultivated foreign soil, or what is always at hand, and generally, perfectly adapted to the purpose, the subsoil lying directly beneath. It has been found necessary, in parts of Europe, which have been subjected to a close tillage for ages, to adopt this system, even when the supersoil was fully supplied with every element of fertility, and the effect has been immediate and peculiarly striking.

The practice of constant cropping with the same species of vegetation, may, it is true, in many cases, be attended with peculiar objections. Such are the nourishing of such insects, worms, or grubs, as are destructive of the crop, by constantly furnishing them food of a kind adapted to their most successful growth and productiveness; or the increase of weeds, which the necessary mode of cultivation will not readily admit of exterminating. In these cases, an occasional change of crop, may not only be the most economical, but the most effectual mode of eradicating its enemies.

An objection has been frequently made to continued cropping of a single species of vegetation, from the fancied theory of *prejudicial excretions* of the roots, a theory advanced and ingeniously supported by Decandolle, but which the closest scrutiny, of the most able and scientific observers since, has failed to establish, and it is confidently believed no difficulty may be apprehended from this cause.

It may, and doubtless is, beneficial in many, and perhaps all cases, that some additional material be added to the soil beyond what is taken off in the crop, or otherwise escapes. Such are lime and gypsum, which, in addition to the food they yield directly to plants, serve an important office in drawing the organic materials from the atmosphere, and combining with them, in which condition they are retained for the growing plant; and they are useful, also in predisposing such chemical action in the constituents of soils, as will most effectually subserve the great objects desired. Such, too, has charcoal been found, in hoarding up carbonic acid and ammonia for plants, though yielding no perceptible portion of itself to the soil or plant. Lime, also, is frequently absolutely essential in neutralizing deleterious vegetable acids, and mineral carbonates and oxides existing in the soil. An additional quantity of some of the materials requisite to the perfection of a crop may be necessary, from inability in a single season to mix them intimately with all parts of the soil, so that not only every root, but every fibre and spongiole shall be able to drink in a full supply of its appropriate nutriment, that no time be lost in maturing and giving the fullest perfection to the plant. An excess of some of the materials beyond what may be required for present use, therefore, if not so great as to be positively injurious, will, in many cases, be found indispensable to the greatest success; and this excess need be attended with no further loss than the interest of the outlay till it becomes sufficiently blended with the mass to yield itself up to the constant demands of the plant.

These conditions being fully considered and provided for, we believe a thousand successive crops may be taken from the same field without

impoverishment or diminution. Such a practice may not be attended with any peculiar advantage with the majority of farmers; but would be eminently beneficial with many. Such as have arable lands near home, and remote pasturage adapted to their wants, would save a large annual expense in hauling their manures, and the waste of time in going a considerable distance to attend to the planting, cultivation and ingathering of the crops. Such also as have but a small portion of their land suited to easy cultivation, all of which may be kept constantly under profitable tillage, while all the remainder of the farm, may be rough, rocky, or steep hills, would find great advantage in confining their operations to the same fields. And all who have lands at high prices, where interest and taxes are large items in their accounts, would find it to consist with the greatest economy, to adopt a system of soiling, by which an acre of land contiguous to their stables and yards, would produce from two to five or six times the quantity of food for their cattle, now yielded by their light pastures, and it would cost but a trifling addition, in any instance, to the expense of cutting and feeding, while in some cases, there would be positive economy, in the labor of twice daily driving cows and working animals to remote fields to gather their own food.

R. L. Allen.

Buffalo, August 20, 1844.

A PLOW FOR TURNING UNDER THE COW PEA.

Can not your ingenious mechanics add something to their breaking plows which will *cut* the stems or vines of the cow pea, so as to enable us to turn them completely under? They cover the ground to the depth of from 18 to 30 inches, the vines thickly interwoven. We can roll them flat, or tread them down with hogs; we can also draw the leaves and points of the vines under, with a chain, as you do in plowing in clover; but we still want a coulter that will *cut*, not *drag* the vines, which are of great length, and many of them as thick as your finger.

I have thought of several plans, and have been told that some northern mechanic made a machine for a planter in Louisiana—a plow with a pair of large shears attached, and worked by a wheel, in some way, within the plow. Who it was for, or who made it, or how it works, I know not. I would suggest, a wheel with a steel cutting edge, or a very sharp coulter, bolted on at a very obtuse angle with the point of the beam, as in the jumping-shovel plow. But in both cases, though we have no stones, I fear the cutting edge would not last, unless, indeed, the wheel was so arranged as to press against a surface of *rawhide*, sliding along under it, and under the vines. A pair of shears might be attached to the beam, the blades, as in sheep-shears, kept apart by a spring; the lower blade resting on the ground, with a one-sided wheel attached to its point, the irregular motion of which would work the shears. These for suggestions. We would object less to the *expense* of such an addition to the heavy plow, than to the extra weight, and aptitude to get out of order. Without such an addition we can never derive much benefit from the cow pea as a fertilizer, otherwise than by turning them under in the spring after they have been rendered brittle by the weather, and trodden in by the stock. I have now a coat of peas upon some of my land here, poor as it is, which no plow that I have ever seen could turn under, without some addition of the kind. We have the same difficulty to contend with in the very heavy crop of crab grass, which comes up all over our corn-fields during the long growing season we have after the corn crop is laid by. So thick, tall, and closely matted, is it, that *when dead*, it can not be turned under and covered by any plows we now have; and we have no time for plowing while it is yet green, making as much cotton as we now do.(*a*) It is customary, with a great many, to burn it off! I managed it pretty well last year, by having the furzy surface burnt off after a rain, before the body of grass had dried any. I am of opinion, however, that with Ruggles & Co.'s eagle plow, or Prouty & Mears' centre draft, I can bury it completely, by having a boy keep up with each plow, and clear the coulter with a stick, as the plow runs, or I may perhaps manage to clear it with a crooked iron rod, worked by the plowman by means of a cord.

Could the cotton planter be induced to *think* of such things, and be satisfied to make less cotton, he would quickly find that by turning over his corn-field in the fall, or early in the winter, and putting his cotton there next season, even if he adopted no other rotation, (manuring his corn, and planting peas there early,) he would find that one half to two thirds of the land now in cotton would produce more than he could gather within a reasonable time. He could then make money from his cattle, sheep, and hogs—could sell hay from his Bermuda meadows—raise all his supplies at home—make his own clothing, leather, shoes, implements, &c., and be at the end of each year a richer man, and leave his plantation to his children, rich in improvements, and with a soil unexhausted. Here we are making a crop this season that will, I fear, prevent any increase in the present low price of cotton, or at all events, but a trifling increase to what we had every right to expect from the great diminution occasioned by the flooding of the river lands. Had we made a moderate crop, our staple must have gone up again to a remunerating price. Thomas Affleck.

Washington, Miss., Oct., 1844.

(*a*) We have consulted with several of our mechanics relative to Mr. Affleck's suggestions about a plow for turning in the cow-pea. Their answer is, if they were on the ground and could see the working of the plow, they might be able to do something, but at this distance they see little hope in the case. We think the crab grass might be more easily managed, by using a wide sod plow, something like those for paring, cutting the ground about three inches deep, and turning the sod flat over. But such an instrument would require at least four stout mules to move it, and so much force as this attached to a plow, is enough to frighten many planters of the upper country against the use of it. When on the rice planta-

tions in Louisiana, we saw a heavy French plow, with three to four yoke of cattle attached to it, which turned the sod covered with rank thick weeds and grass, flat over, in a very perfect manner. The prairie or northern sod plow, we are persuaded would do the work as well, and much easier than the ungainly French plow. But with all these our correspondent is quite as familiar as ourselves, and much more capable of deciding as to their merits.

FRUIT AT THE SOUTH.

I PRESUME the idea must have originated here, that our country was unsuited to fruits; but that idea does even now exist to a greater or less extent, and consequently those who do attempt it make failure almost sure, and thus prove the hypothesis—at least to their satisfaction. But thanks to the inquiring age, the indomitable energy of some, and the light of agricultural periodicals, this matter is undergoing a vast change; and I hope, ere many years pass, that our whole country will be convinced that we have a fruit country, and that all of my countrymen will avail themselves of this great blessing. I look on fruits as peculiarly suited to our wants, and thinking as I do, I should be forced into the inference that our Creator had fallen short in his perfect work, if our climate was unsuited to the easy production of fruit.

In warm climates, fruit is conducive to health (ripe fruit, of course), and if we could have it of a good quality, and in abundance, I think the scourge of our land, *fever*, would be more under our control. In the first place, we all know that the bile formed in our system is secreted in greater abundance in summer than winter, and I think if we would use less food that has carbon as its principal constituent, that we should be exempt from at least much of this increased flow of bile. Fruit is an article of this description; and requiring less carbon to keep our system in operation in the summer, with a great desire for this article, fruit, I think that we could with marked benefit use it freely, and to a greater extent than our northern brethren. I do not desire to enter into the subject more fully; it has been trenched on by many, and only add, that it seems to me, the oxygen in the fruit will combine with carbon in the system, and pass off harmless. You will therefore conclude I regard fruit as conducive to health, which I do.

I put it, on another footing, as our pecuniary interest. All manner of stock will feed on fruit, and most of them will improve in condition: besides, it will act on them as on man as to health—prevent disease. What number of hogs an orchard of 20 acres of good peaches and plums would keep in excellent condition from 1st of May to 1st of September or October, I can not form an idea; but I know this much, that hogs in an orchard of the Chickasaw plum (common plum of all this region) will not come to call, and presume that they would readily come for corn if this fruit was not to their taste. I think that, acre for acre, the same land will feed as well as if in corn; for if the orchard be cultivated as I deem it should be, plowed once every spring, and left until the fruit ripens, it will produce quite a pasture of crab grass, which of itself will fatten stock. And yet another advantage, which is now no longer hypothetical; fruit is profitable to ship to New Orleans, and those who live within even 20 to 30 miles of the Mississippi river can make it profitable, though of course not so much so as if living nearer. I do not see any reason why we might not sell in New Orleans alone 200 to 500 barrels per day of choice peaches, beside a large quantity to the planters on the Mississippi, where steepage water prevents their growing peach and other standard trees, to say nothing of Upper Mississippi and its tributaries. Understand, we can ship excellent fruit by the middle of June, and some of the early varieties two weeks earlier—this is of peaches; our strawberries can be sent up and down early enough to pay us well, beside which, the travelling custom on the Mississippi river is immense. We have therefore three good reasons, if I am correct in the first; beside which I state the gratification of our own taste and that of our visiters, as well as the moral bearing. Who would think of offering his friend a glass, when he could place before him, from the 15th of May to the 1st of October, the strawberry, melon, and peach, in season, and apples and pears, &c., all winter?

That peaches will grow here to perfection, equal to any point in these United States, who will affirm to the contrary? If any be found so hardy, and will come here, I pledge my head to prove to him he errs, and will go no farther than Hatch's or Lambert's, or my friend Hebron, in Warren county. I have bought peaches in the Philadelphia market at 12½ cents each, and excellent they were. I was in that most delightful city for two years, and saw choice fruits of all kinds, and I do aver, I never saw there a finer peach than I can show on this place in August. There has been shipped in one day, at Vicksburg, for New Orleans, on one boat, 200 barrels of peaches; this proves something.

Many persons rely on seedlings, and will not be convinced by the sad experience of some of us. Mr. Hebron has planted out not less than 1,000 seedlings, and I presume in the last twelve years I have done the same. What are they worth, with all our trouble? Both of us have budded to the sprouts, or tender limbs of over 90 per cent. of our seedlings, I guess, intending to cut down the trees of three to five years old; this shows *our* estimate.

Too many plant fruit trees on worthless land, fit for nothing else. This might do if they would remove four to six feet square of the clay, full three feet deep, and fill up the hole with earth from virgin soil or the woodpile, and then run a subsoil plow eighteen inches deep. I have never elsewhere seen nectarines succeed as well as in this country; I think they do equally as well as the peach. The raspberry of several kinds is very excellent. Summer and fall apples and pears do full as well, so far as our limited experience proves anything. The only difficulty is, your winter fruits transplanted here, ripen too soon for us; but I think time and experience will remedy this in our rearing winter fruits to suit our latitude. The

quince I never saw finer; several varieties of the plum do well, and do not fail in one year out of fifteen. The fine plums, cherries, and apricots, have not been tested sufficiently to say anything for or against them. Of the latter I know some few gentlemen who say there is no difficulty at all. The grape will unquestionably succeed admirably. Think of sticking a cutting twelve inches long into the ground, and no more preparation; and yet many cut grapes from such culture. The fig—go south of us for the best, but not north of us for better.

The cultivation of fruits has as yet in reality received no such attention as you northern folks describe. We dig a hole some fifteen to eighteen inches square, about a foot deep, make the roots adapt themselves to this size, plant sometimes deep and sometimes shallow, owing to ease of digging the hole, and let it grow or not! This is truly about the amount of labor in planting our fruit trees. There are exceptions, I know, but this is the plan. We then plant corn, or cotton, or grain' as it happens to suit, and grow our fruits. Is it any wonder that we have not the rich, luscious fruit of the north?

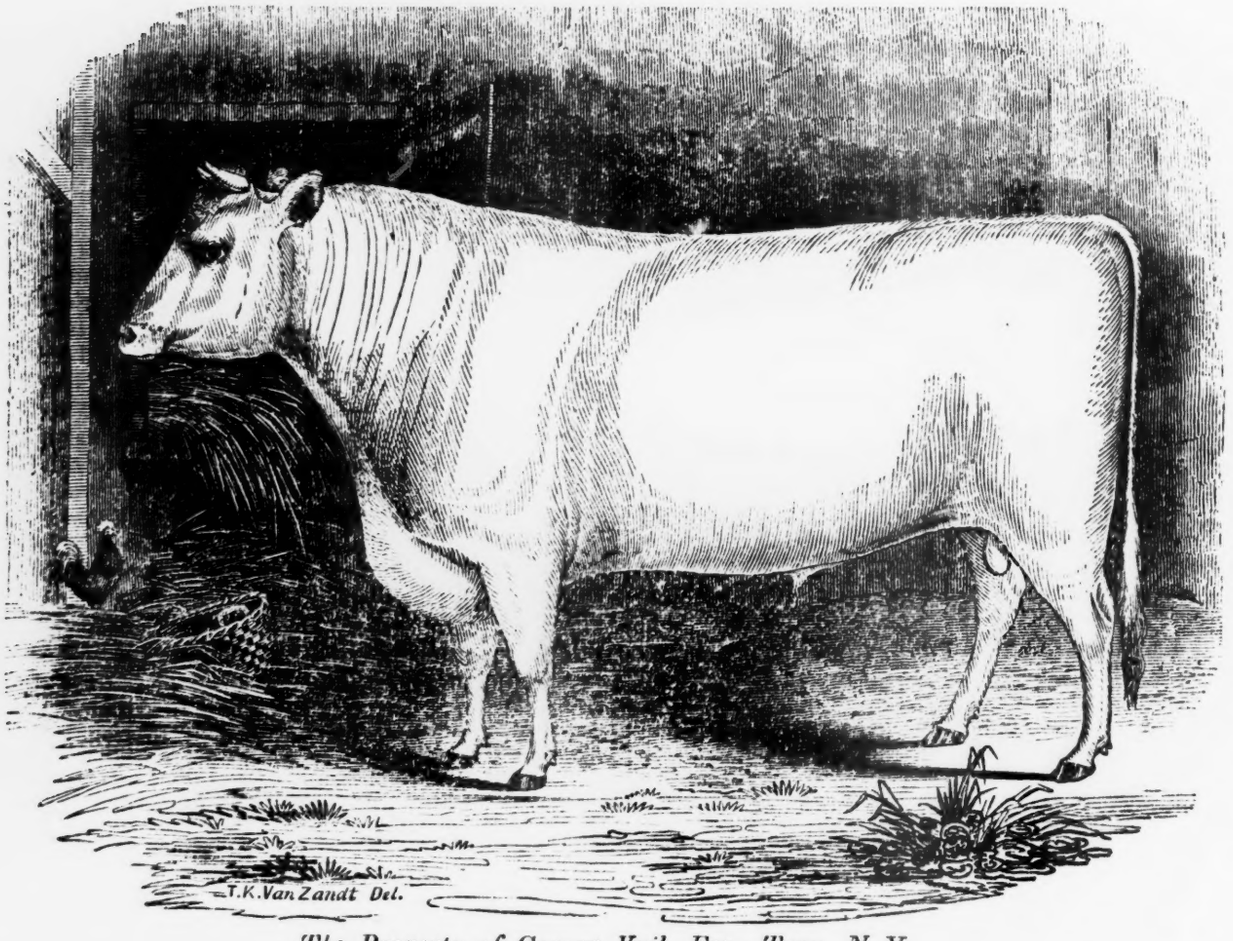
But we had better stop here, for I have said enough at this time, which I trust most earnestly, will induce some reader of yours to try the cultivation of choice fruits in a correct manner, and I do this with the firm belief that he will succeed, and if influenced to do so by this article, that he will feel thankful to the columns of the American Agriculturist for this advice.

M. W. Philips.

Edwards' Depot, Miss., Oct. 1, 1844.

N. B. We had frost here on the mornings of the 29th and 30th September. I have never known it so early before. Judge Noland, who has been here some thirty years, says it is the first frost in September he ever saw. The frost was plain, when the sun was an hour high.

DURHAM BULL METEOR.—Fig. 67



The Property of George Vail, Esq., Troy, N. Y.

In presenting the above portrait to our readers, we regret to say, that the artist has greatly misrepresented this fine animal, in giving him a dewlap, as he is particularly clean in this point. Nor is justice done to him at all in the brisket, he being very full, wide, and deep there. He has also become much thicker and heavier now than when this sketch was made, being then but 2 years and 5 months old.

Meteor was got by the Duke of Wellington, out of Duchess, both of which were bred by Thomas Bates, Esq., of England, and imported by Mr. Vail in 1840. He was dropped, if we recollect right, in July, 1841, and is of a pure white

color, and a very superior animal. In September, 1843, he took the first prize as the best bull in the first class, at the Rensselaer County Agricultural show; October following he took the first prize at the cattle show of the American Institute in New York; and the present year at the exhibition of the State Agricultural Society at Poughkeepsie, he took the first prize of $20 as the best bull present of any breed, and another of $15 as the best 3 year old bull in the class of Durhams.

THE POLICY OF AMERICAN FARMERS—No. II.

In the adoption of a system for the better support of American agriculture, we deny and utterly discard the idea of any local, partial, or selfish policy. On the contrary, we believe, the just interests of that portion of the community whose claims we advocate, are identified with the prosperity of every other truly national pursuit, and inseparable from it. A flourishing commerce is essential to the transportation of such commodities as are either directly or indirectly derived from our soil. Successful manufactures are necessary to the consumption of our own products, *which can in no other way find a profitable market, and their fabrics are, in all cases, sooner or later, afforded to the consumer at a lower price and of a better quality than the foreign article, after they have, by a little timely aid from the protecting arm of government, been nurtured into maturity.* By a salutary division of labor, too, they direct from the tillage of the earth a portion of our citizens, who would otherwise overload the country with their products, and reduce them to a ruinous price. Merchants, being the factors of the agricultural class, are benefited in proportion to their prosperity; and nearly all the other professions and pursuits, deriving their support from them, are certain to be remunerated with a full share of their profits.

We look for the promotion of the farming interests to other sources than the depression of other pursuits. Our republican institutions can not be made to sustain any such policy, if we were disposed to adopt it. Our community is not parcelled out into distinct and unchangeable orders and classes, like the castes of the ancient Egyptians and modern Hindoos; or in the iron-bound system of feudalism of the middle ages; or like the present national arrangement of serf and noble in Russia and the eastern portion of modern Europe; or even like the hereditary orders and almost impassable barriers by which the policy of the English government, and the crushing weight of prescriptive public opinion has effectually hedged in the various crafts and professions of her citizens, and renders any change, unless under peculiarly favorable circumstances, next to impossible. On the other hand, we are a people, homogeneous for all purposes of occupation or employment. The lawyer of to-day is the merchant to-morrow, and a farmer the day after; the inheritor of thousands, by his ignorance or vices, finds himself, before middle age, stripped of his ancestral domains, and compelled to toil for a livelihood during the remainder of his life; while the poor and uneducated boy, by dint of industry, intelligence, and economy, rises rapidly through all the gradations of emolument and rank which the country and its institutions afford. Our republican condition has an absolute and ever-operating principle of equalization among the various parts which make up the mass; like the hydrostatic law, which compels the liquid in a series of vessels connected at their base, to part with just such a proportion of its fluid as will restore the exact level of the whole, when from any cause a quantity has been added to or substracted from either. But in the body politic this is a work of time, and frequently of great loss and inconvenience, and as the mass can not immediately change their pursuits, a just policy would seem to prescribe that every contemplated change of system in national affairs should be made with a reference to entire permanence in the end, and all practicable moderation in the means by which it is to be effected.

When changes in national pursuits are required, as they are in the progress of events, our statesmen should look with an enlightened forecast into the future, and determine what channels labor and capital shall pursue, with the greatest prospect of reward, and the least probability of interference hereafter. Vacillation in national affairs is the great bane to be feared in a republic where universal suffrage prevails, and it must be confessed, our own has given some signal examples of it. R.

SARATOGA FARMING.

A sojourn of some few months in the pleasant village of Saratoga, has enabled me to become somewhat acquainted with the agriculture of its neighborhood, and condition of its farmers. Believing it to be a district of which little is known of it, save its salubrity, its health-restoring, and pleasure-affording springs, I would wish to trouble you with a few remarks on other features, whose importance may be estimated rather at what they *should be* than what they are. To tell you that the soil hereabouts is commonly a sandy loam, resting, in some instances, on a retentive subsoil, and in others on a lime-stone, and still in others on rudely compacted concretions of granite, is, perhaps, sending "coals to Newcastle," or telling you what you know already. Let me proceed at once, therefore, to the cultivation of this soil and its productions.

The same ruinous rotation, if it be worthy the name, which marks generally the farming of the state, is found here flourishing in all the perfection and glory of its absurdity and ruination. Grass from two to six years, according to the tendency of the tiller's inclination to dispose it otherwise, or of the wild *mulleins* to hide from view his pigs and sheep; then follows a corn crop; then rye, or oats, followed sometimes by wheat laid down to grass again; but very frequently the land returns to grass with the rye or oats. Potatoes are grown sometimes after one crop, sometimes after another—they have no decided position in this *system.* As regards produce, it is as you may anticipate, fully in accordance with the rotation, poor enough to what it ought to be. Corn, 30 bushels per acre; wheat, 14 bushels; Oats,

50; and potatoes 150, are considered very good crops, upon a soil, which, with anything like judicious management, is, expense of cultivation considered, capable of being made the most profitable in creation. The principle of producing *something* with the least possible expense and trouble, may be seen illustrated hereabouts with all its beautiful consequences. Tumble-down fences, old cultivated fields, still capable of rendering a good return of non-extracted stumps, together with such a vigorous appearance among the weeds, as bids fair, at no distant day, to establish their complete supremacy in the vegetable kingdom.

The size of the farms varies from 50 to 150 acres each. The *occupiers*, or "abusers," being generally men from whom you would expect better things, for the most part, intelligent, well-informed men, who know better, but will not practise it; and all possessing that trait of character pervading so generally the agricultural community —hospitality. To the truth of this I am an excellent witness, inasmuch as in my botanical wanderings, I have frequently had occasion to prove its existence and its depth. Much allowance, however, must be made for this want of energy and enterprise among the sons of the soil in these parts. They have no good remunerating prices to repay them for their labor, and emulate them to improvement; for say what you will about a man's duty to improve, if dollars and cents are not the consequence, his patriotism may starve him; and *practically* speaking, this is a consummation which for personal reasons, will be rather avoided than desired.

In the season's zenith the farmer can get but 12½ cents per lb. for his butter, and about a cent each for his eggs, and 12½ cents for a chicken; and these, you know, are not prices to induce draining anything but the pockets, or subsoiling anything but one's patience. Then, if he is very lucky, he will get 50 cents per bushel for his corn, $1 for his wheat, and 25 cents for his oats. His potatoes he wants mostly for his stock during the winter, what he sells he gets 25 cents a bushel for. Now as far as the consumer is concerned, these prices are everything that could be wished, especially as regards the large hotel-keepers, who, charging $10 to $12 per week to the accounts of their boarders, can console themselves with the thought that the poor farmer's account will not interfere much with their immense profits.

But *all* is not so bad as my brief remarks would induce you to suppose. No; doubtless in looking over the contributions of your numberless correspondents, you find much that is too poor for your columns, (may the gods send me favor,) but now and then something that suits exactly. So with my "farming eye," I have seen much to disgust me, but one or two farms that suit me exactly. Among others I will name two; one about a mile east from the village, of about 130 acres, farmed in a masterly manner, by one James Stewart, a Scotchman; the other belonging to Mr. Root, 100 acres, situate in Galway, about 15 miles west; a gentleman keenly alive to the importance and profits of judicious improvement. The general neatness of everything about these two farms strikes the eye of every one at all observing, as he rides along the roads that border them. Mr. Root has squared his fields off with beautiful precision, subdrained where necessary, and broken up, by deep plowing, the hard pan which systematic idleness had formed beneath the surface soil. Everything about him bears the aspect of comfort and cheerfulness; the very grunt of the sleek porker grows musical as he smiles on his wholesome food. I am happy to say Mr. Root's good example is being followed in the neighborhood; and so with friend Stewart, 70 years of age, and still as willing to try useful improvement as when at the age of 50, he plowed the furrow among his native hills in Scotland. His farm is a perfect garden, it is so clean; his corn better planted than any of his neighbors; his land in good heart, and yielding him excellent ruta baga and beet root. And if he wants physic, a beautiful mineral spring in his low lot furnishes him with it, direct from Nature's store.

I could dwell with pleasure upon the minutiæ of the management of these two pattern farms, but dare not trespass on your columns for fear of being marked "not accepted." I must, however, allude to one other pleasing sign lately shown in the neighborhood, I mean the erection of a lime-kiln by Mr. Hoyt, and the result of a first burning just completed of 600 bushels of very superior lime. According to the analysis made by our friend, Dr. Gardner, the stone, from which the article is made, gives a return of 52 per cent. of pure lime. Two hundred bushels were disposed of in one week. This is no doubt an earnest of better things. You will doubtless join with me in wishing success to all such attempts at improvement.

DENDY SHARWOOD.

COMPOSITION OF SALERATUS.

IN the article in the November No. p. 345, of the Albany Cultivator, C. D. asserts that saleratus is composed of sulphate of potash and pearlash. I am surprised at the writer falling into this error, for I presume every dealer in the article must know that saleratus is a supercarbonate of potash. Should it contain any sulphate it is an impurity. If sulphate of potash will answer as well as saleratus, it can be bought at nearly half the price.

I should notice another error on page 342; but as it originates with Liebig, whose opinions are at present by too many considered infallible, I shall refrain from any comment.

WM. PARTRIDGE.

SUBSOIL PLOWING.

I MADE an attempt to considerable extent last year to trench my land, by running one plow after another, in the hollow of the previous year's ridges; and although I did not reach above ten to eleven inches at last, I thought in this very dry season, there was some marked improvement in retaining the fruit. My object in subsoiling it, is to penetrate eighteen inches, and to bring up a ferruginous sand and soil of a dark snuff color, which generally underlays the surface soil, of a white and coarser texture; I believe this under

soil will supply some of the constituents that are wanting in the other. Many of our fields have had, as was previously stated to you in my letter on Sea-island cotton, great quantities of oyster-shells deposited by the extinct Indian tribes of the seacoast, and under these shelly lands will generally be found a gypsius sand still more valuable for mixture with the surface soil.

THOMAS SPALDING.

Sapelo Island, Geo., September 24, 1844.

IN answer to our call in the October No. of the Agriculturist, page 300, upon Messrs. Jewett and Randall for the pedigrees of Pedro, Fortune, &c., Mr. R. has given below, what we suppose is all that he thinks he has any concern in; but as the pedigrees of Pedro and the "*Simon Pure* flock of 400 Paulars" still remain untouched, we shall be obliged to Mr. Jewett to answer so far as regards these animals. We presume he has long had their pedigrees in hand, and as a certain portion of the public is very anxious to see them, we shall expect to be furnished with the matter in time for our next number.

PEDIGREES OF MR. RANDALL'S SHEEP.

IN your paper of October, you ask me and S. W. Jewett, Esq., of Vermont, to give you "the pedigree and breed of Mr. Jewett's rams Pedro and Fortune;" 2d, you ask *me* to inform you where the "pure Paulars in the U. S. in the hands of various individuals are to be found, of which I speak at page 25 of the Cultivator for 1844."

With your permission, I will first answer your second question. By turning to the communication of mine in the Cultivator, alluded to by you, you will perceive that I do not assert there are any Paulars in the United States, *on my own authority or knowledge;* 2d, that the assertion, let it be on whose authority it will, is but conditional and hypothetical. It amounts simply to the expression of an *opinion*, based on the supposed credibility of certain testimony, and, to equally enable others to judge of its validity, the nature and kind of that testimony is fully set forth in connexion with such expression. That testimony was "the assertions of honorable and veracious men."

I make this explanation, not because I have any doubts as to the fact involved, or my ability to prove that fact, but because having repeatedly expressed my disregard publicly and privately, for what I consider the fictitious importance attached to the "*Paular*" name, and having so repeatedly laughed at both the pros and the cons in what may be styled the "Paular War," I have no ambition now to be suddenly elevated to the rank of a leader or champion, in either of the belligerent forces; in other words, I would not constitute myself, or be constituted by others, one of the principal parties to a dispute which I regard as of little importance.

With this disclaimer, I have no objection to give a portion of the proofs (enough to establish the fact, in my judgment) on which I based my opinion. As those proofs will, incidentally, form a portion of my answer to your first inquiry, I will now pass to the consideration of that inquiry.

Let me premise, for a proper understanding of the subject by the reader, that since your first inquiry was made, you have, in compliance with my wishes, so varied it, that its scope, instead of being limited to *two* sheep, neither of which is owned by me, and one of which I never saw, now embraces the pedigrees of *my flock of Merinos.*

Not to unreasonably exceed the limits of this communication, I shall at this time call attention but to a single strain of blood in my flock. I have others, the purity of which I consider equally susceptible of proof, and which I *know* to be accompanied with equal *value*, in the individual, but I make choice of the one which, with one exception, includes the sheep on which I drew the first premium on Merino rams, and first and second premium on Merino ewes at the late Fair of the State Agricultural Society at Poughkeepsie, because these animals having been so publicly exhibited, their pedigrees may be a matter of more interest to many, than those of sheep never seen by them. Indeed, I should be exceedingly reluctant to take up the room in the columns of a public periodical, with *any* of my pedigrees, were it not that I conceive that they may borrow some interest, in the public mind, from the light which they throw on an important, and among those who have not particularly investigated the subject, a mooted question, viz., whether there are or are not now in the United States, pure-blooded descendants of the early Merino importations, beside those of Consul Jarvis, and of some few who hold from him.

Andrew Cock, of Flushing, Long Island, purchased imported Merino Sheep of Richard Crowninshield, and various other importers. In 1823, he sold his flock to Hon. Charles Rich, whom many will recollect as a former Member of Congress, from Vermont, and Leonard Bedell, both of Shoreham of that State. John T. and Charles Rich, sons of Charles Rich, senior, inherited their father's flock. John T. has kept his portion of it pure to the present day. Charles kept his pure for a period, but whether he has to the present day, or whether he retains them at all, I am not informed. Bedell kept his flock pure to the time of his death, at and shortly previous to which time, portions of it fell into the hands of various breeders, several of whom have preserved it pure to the present time. John T. Rich, S. W. Jewett, Gen. Jasper Barnum, M. C. W. Wright, and some other individuals, own descendants of the Cock flock, which have been preserved pure and unmixed, a portion of them from *any other blood*—a portion of them from any other blood excepting that of Consul Jarvis's importation, by the use of rams regularly attested by Consul Jarvis to be pure descendants of his imported Spanish sheep. The ewes of mine which received the State Society's first and second premiums at Poughkeepsie, were got by "Fortune," dams pure bred ewes of the Rich or Cock stock, owned by S. W. Jewett.

The following statement by the Hon. Effingham Lawrence, of Long Island, (who acted as Chairman of the fine wooled sheep committee at the 2d State Fair at Albany—who has owned, bred, and sold more pure bred Merinos, and possesses a greater knowledge of the early importation of them, than almost any other individual in the United States—) shows the kind of sheep possessed by Andrew Cock, his skill as a breeder, and his integrity as a man.

Judge Lawrence's Statement.—Yours is duly received, in which you refer to a conversation we had, on the subject of Merino sheep, and particularly of the quality and purity of the flock of Andrew Cock, who was my near neighbor. We were intimate, and commenced laying the foundations of our Merino flocks about the same time. I was present when he purchased most of his sheep, which was in 1811. He first purchased two ewes at $1,100 per head. They were very fine, and of the Escurial flock imported by Richard Crowninshield.

His next purchase was 30 of the Paular breed at from $50 to $100 per head. He continued to purchase of the different impor-

tations, until he run them up to about eighty, always selecting them with great care. This was the foundation of A. Cock's flock, nor did he ever purchase any but pure-blooded sheep to my know edge or belief. Andrew Cock was an attentive breeder; saw well to his business; and was of unimpeachable character. His certificate of the kind and purity of b ood I should implicitly rely on. I recollect of his selling sheep to Leonard Bedell of Vermont.

EFFINGHAM LAWRENCE.

Flushing, 1844.

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Statement of John T. Rich, Esq.—I certify that my father Charles Rich, and Leonard Bedell, former residents of this town (now deceased), did on or about the year 1823, purchase the entire flock of sheep owned by Andrew Cock of Flushing, Long Island. Accompanying said sheep, Mr. Bedell brought a certificate that came with the sheep from Spain. I have read said certificate, which gave a full description of the sheep purchased in Spain, with guaranties of their purity of blood, which was regularly attested by the American consul then in the Spanish or Portuguese dominions. I thereby had satisfactory evidence that they were all of this importation, and that many of them brought to this town were the identical sheep imported. The certificate, I am confident, described them as from the Paular flock. The ewe that was the dam of Mr. Jewett's buck Fortune was a pure descendant of this imported flock above described. I have p eserved this flock pure to this day, which amounts to more than five hundred. Some of the flock have been recently crossed by bucks of the importation of Consul Jarvis, which said bucks were purchased from the flock of, and regularly attested by, said Jarvis, as being pure Spanish Merin s.

JOHN T. RICH.

Shoreham, 1844.

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Statement of Hon. S. H. Jennison (late Governor of Vermont).—I certify that I am personally and intimately acquainted with John T. Rich, of Shoreham, Vt., the signer of the above certificate, and that his statemen's are entitled to full credit.

I further certify that Leonard Bedell, late of Shoreham, deceased, was a near neighbor to me, and I recollect learning from him many years since of his purchase of the flock of Merino sheep, on Long Island, as stated by Mr. Rich. I have several times seen the certificate mentioned by Rich in the possession of the said Bedell. I have reason to believe the portion of the Long Island flock, purchased by the late Hon. Charles Rich, and now kept by John T. Rich, have been kept pure as he states. I was well acquainted with the portion of the flock kept by Bedell, having handled them on several occasions between 1821 and 1830. Some of the ewes in the flock were pointed out to me as imported ones, which were toothless and very old, between the dates above named. I have several times had bucks from the flock, and never entertained a doubt of their being pure bred Spanish Merinos. Mr. Bedell called them, and I thing the certificate named them as of the Paular breed.

S. H. JENISON.

Shoreham, 1844.

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Charles A. Hurlbert's Statement.—I certify that I lived near neighbor to Leonard Bedell, in the town of Shoreham, Vt., in the year 1822, and that during that year Mr. Andrew Bedell drove a lot of sheep from Long Island, purchased of Andrew Cock.

From 1823 until the decease of Mr. Bedell, a period of fifteen years I lived in his family and had the charge of his sheep. Mr. Bedell kept none other but full-blooded sheep of the Cock flock, and I was perfectly familiar with a number of them always asserted by him to have been originally imported. They had a distinctive mark, as such, had attested marks and rings of copper in their ears, and were very old.

Mr. Bedell also had the original Spanish certificate of their purity of blood, attested by the American consul. These sheep were preserved by Mr. Bedell entirely free from admixture with any other blood. Previous to his decease I selected about 80 of his ewes, which I afterward drove to Monkton, and finally disposed of to S. W Jewett, of Weybridge. CHARLES A. HURLBERT.

Monkton, 1844.

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Gen. Barnum's Statement.—I hereby certify that I was born and lived in the neighborhood of Mr. Leonard Bedell, during his residence in this town; that I well remember the flock of Spanish Merino sheep which he drove from Long Island 21 or 22 years ago; that I was familiarly acquainted with this flock of sheep until his decease in 183-, having assisted in shearing them every year during that time with the exception of three or four. Mr. Bedell had a certificate of the lineage of the sheep from Spain, certifying their purity of blood, which I have several times read: and I am *confident* that it described them to be Paulars, from the flock of "Don Manuel de Godoy, Prince of Peace," &c. Mr. Bedell, though repeatedly urged to sell ewes, utterly refused, though offered high prices by myself and others; nor did he part with any until the last years of his life. I now live on the farm formerly owned and occupied by him, and possess a large portion of the above described flock. I am confident that it has not been crossed with Saxons or any other native breeds of sheep in this country.

JASPER BARNUM.

Shoreham, 1844.

Levi Rockwood's Statement.—I moved into the neighborhood of Leonard Bedell, late of Shoreham, Vt., in the spring of 1830, and soon became acquainted with his flock of Merino sheep. I have frequently heard him relate the history of his sheep. He said he purchased them of Andrew Cock, of Long Island, and that they were imported from the flock of Godoy, the Prince of Peace, in Spain, as their Spanish pedigree, in his possession, would show. He always called them Paular Merinos, and frequently boasted of this as being the best stock ever imported. I have heard him advised to cross the blood of his flock by using bucks from other Spanish flocks, but he insisted on keeping his pure, preferring, as he had done, to breed them in and in. I have seen the Spanish certificate which accompanied the sheep, but never read it.

LEVI ROCKWOOD.

Monkton, 1844.

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Statement of Hon. Harvey Munsill (Judge of Probate).—I hereby certify that I am personally acquainted with the above named Levi Rockwood, and have been for a great number of years. I consider him a man of truth and veracity, and believe him to be so considered by the community at large. HARVEY MUNSILL.

Bristol, 1844.

Certificates to the same general effect with the above might be indefinitely multiplied, and the above would be promptly *turned into affidavits*, were there any occasion for such a step.

It will be observed that the sheep sold by Cock to Messrs. Rich and Bedell, were imported with a Spanish pedigree, attested to be genuine by one of our Consuls in the Spanish or Portuguese dominions.* This is distinctly asserted or confirmed in *every one* of the above certificates. This Spanish pedigree named them as Paulars, as appears by the testimony of all the witnesses save one, whose omission to mention the fact was doubtless casual or accidental; and Gen. Barnum distinctly recollects that they were stated to be from the flock of Manuel Godoy, Prince of Peace. Rockwood recollects with equal distinctness that Bedell was in the habit of asserting that the Spanish pedigree described them as from the flock of Godoy, at a time when that pedigree was in existence, and open to the inspection of any one. This personage was, until his effects were confiscated, the proprietor of the Paular flock. Gov. Jennison and Mr. Rockwood mention that Bedell was in the uniform habit of calling his sheep Paulars, and this was at a time when this name would probably have attached little, if any, additional value to them, in the minds of sheep-breeders. Judge Lawrence distinctly recollects that Cock purchased *thirty* Paulars at one time of the importer—more than one third of all the imported sheep ever purchased by him.

The original Spanish pedigree was delivered by Cock to Rich and Bedell, *as the pedigree of the sheep purchased by them.* That certificate described marks and certain rings in the ears, &c., which *corresponded with those borne by the sheep delivered.* Now if the sheep so delivered were not the identical sheep described in the Spanish pedigree, and their descendants, Andrew Cock must have *forged* their distinctive marks, in imitation of the genuine Spanish marks, and thus been guilty not only of gross fraud, but of what would clearly constitute the *crime* of *swindling.* Judge Lawrence's statement shows how far such a supposition is reconcilable to his character. We have it then proved by the best testimony which the case admits of, testimony which is entirely conclusive, that Cock sold and delivered to Messrs. Rich and Bedell, not only pure Merino sheep, but pure *Paular* Merino sheep.

The certificate of John T. Rich shows that the part of the flock inherited by him, has been reserved pure from its purchase of Cock down to the present day, (a few of them latterly having been crossed with rams of

*This original certificate is not now probably in existence. Bedell was in the habit of carrying it much about with him, and frequently exhibiting it. It was probably worn out, or lost.

Consul Jarvis' importation,) and now amounts to 500. It would have been an *insult* to this gentleman's high and unexceptionable character to have published the endorsement of it, contained in the certificate of his intimate friend Governor Jennison, were it not that his statements were to be read far from his native state and the circle of his acquaintance. That Bedell also preserved his flock pure from the time of its purchase to the time of his death, is proved by the individual who had charge of it during that entire period; by Bedell's successor on the farm, who was constantly acquainted with the flock, and assisted in shearing it 12 out of the 16 years during which B. lived after he purchased it; by Rockwood; and finally, by his near neighbor Gov. Jennison, who fully confirms the testimony, on this point, of all the other witnesses.

Beside the purchase of 80 ewes of the Cock stock by S. W. Jewett, alluded to in C. A. Hurlbert's certificate, I have lying before me the statements of various other purchases, by the same gentleman, from both the Bedell and Rich branch of the same stock, which it is not necessary to publish. Mr. Jewett's certificate of the pedigree, &c., of the ewes exhibited by me at the State Fair, is as follows:

WEYBRIDGE, ———, 1844.

I have this day sold Henry S. Randall, of Cortlandville, N. Y., for the sum of $200, eight yearling pure bred Spanish Merino ewes, being the choice of my entire flock. Said ewes were got by my buck Fortune, dams ewes of the Rich stock, and they have a half penny taken from the under side of the right ear. Their fleeces averaged five pounds of washed wool, and the four accompanying samples* were taken from four of them.

S. W. JEWETT.

The pedigree of Fortune's dam has been given in Mr. Rich's statement above; that of his sire is thus stated by his breeder:†

Statement of Tyler Stickney, Esq.—The ram which was the sire of Mr. Jewett's buck Fortune, I purchased of Consul Jarvis, of Weathersfield, in the year 1835. He sold the same to me for a pure Spanish Merino ram—ear mark a notch under each ear.

TYLER STICKNEY.

Middlebury, 1844.

No authentication of this statement is deemed necessary, as probably there is not a sheep-breeder within fifty miles of Middlebury, who is not perfectly conversant with the history of this wonderful ram.

The history of Consul Jarvis' importation, and his formal attestations of the purity of the rams sold by him, would unreasonably extend the limits of this communication, and probably they are not necessary, to the full substantiation of the pedigrees. He is yet alive; and the history of his importations will be found in a letter addressed to me in the first vol. of the Transactions of the N. Y. State Agricultural Society, page 320.

As I have already remarked, I have other strains of blood in my flock, some entirely distinct from the above, some a mixture between the above and other distinct strains. Their pedigrees are equally susceptible of proof with the above, and are *always open to inspection.* That the quality of some of these other strains is nothing inferior, in the estimation of others as well as myself, I recently had substantial proof in the sale of a young ram, partly one of these stocks, and partly of the above, at $300, and the opportunity of refusing $100 for a ram lamb of the same stamp.

Yours respectfully,

HENRY S. RANDALL.

Cortland Village, Nov., 1844.

* These were shown with the sheep at the State Fair, and I should now forward them, accompanying this, had they not accidentally been mislaid.

† I erroneously stated in the January Cultivator that Fortune was bred by Mr. Jewett.

NORTHERN CALENDAR FOR DECEMBER.

SETTLE all your accounts, collect what is due you, and pay what you owe. "Short settlements make long friends." Examine your farm statistics, and see what have been the results of your experiments with the different kinds of manures, seeds, modes of tillage, &c., &c., and note them well for future use. No farmer ought to be without such a book, in which all experiments should be carefully recorded at the time, and the results carried into a separate book for his own use hereafter; and if new and valuable discoveries are obtained, communicate them to some agricultural periodical for the benefit of the world. Recollect, you have the experience of thousands to guide your operations, and by contributing to the general stock whatever may be useful, you are but returning to mankind a part of the benefits you have derived from them. But avoid twaddle and humbuggry, and oft-published statements, and prolix or tedious narration, and give all the circumstances material to the subjects, in the briefest, plainest, simplest language possible. Above all things, send in your subscription to one or more valuable agricultural papers, and get as many of your neighbors to subscribe as possible, and consider in so doing, you are benefiting yourself by it ten times as much as you are the publishers. Summer is peculiarly the time for making observations and experiments, and winter the time for communicating them. *Remember the poor*, not only in this month but every month through the year, and especially during the inclemency of winter. You need not give so much to them outright, but endeavor to put them in a way of making themselves comfortable, by affording them employment, by which you may be benefited while doing them good. You thus confer on them a triple benefit, by furnishing them the means of comfortable subsistence, teaching them to help themselves, and avoiding the habit of receiving *charity*, which insensibly weakens their sense of self-dependance.

Stock now require increased attention. They must be well housed, or at least protected against wind, with a shelter to which they can resort in storms, well supplied with salt, and abundance of water if possible in the yard, where they can get it when they want, and without wearying themselves in looking for it, and wasting their manure by dropping it in the road, or by a running stream or pond, where it will all be lost. Their feed should be regular, and given them as near stated times as possible. They look for their food then at certain hours, and are not uneasy and fretful till the customary period arrives, when they again fill themselves, and rest quietly, digesting their food till it is time to look for another supply. If brought up in regular habits, brutes are much better time-keepers than many are disposed to consider them, who have not observed closely their intelligence. Now is a good time to break steers and colts, while the roads are smooth and hard. They ought to be early accustomed to handling and the halter, and be gently treated, by which they are more disposed to yield to the wishes of their master. If they have been always used to good treatment, they will acquire a confidence in their keepers, and the more readily submit to their guidance. 'Tis always better to train them with strong, well-broken animals. Sympathy has more to do with the brute creation than they have credit for generally, and the good habits and orderly behavior of the older animals they have been accustomed to treat with deference, will not be without its wholesome effect on them. Young animals in being broke err more from ignorance than obstinacy or ill-temper; patiently and gently teaching them is the best method to pursue.

This is the best month for spreading out hemp for dew-rotting, in the latitudes below 40°, as it gets a whiter and better rot than if spread earlier.

Kitchen Garden.—Every fine day uncover the frames in which are lettuce and cauliflower plants, otherwise they will become spindling from want of air. Hot beds can now be made for forcing asparagus for the table in January. If the ground is open, continue trenching for spring crops. When the ground is frozen, cart manure, repair fences, clean seeds, prepare tools for spring. Provide pea-sticks, bean-poles, &c., and finish all that will be required in the spring, and which can be done when the ground is frozen.

Fruit Garden and Orchard.—Finish those things which may have been omitted the previous month. If the weather continues open, digging and plowing may be done advantageously. Perform any work that may tend to forward your business in the spring.

Flower Garden and Pleasure Grounds.—Continue to protect your beds of bulbs and also flower-beds and shrubs as directed in last month. Should the weather continue open in the early part of this month, bulbs may still be planted. They should not be left as late as this, but if such has been the case, they had better be planted now than left until spring. Now carefully protect seedling bulbs. The more tender kinds of trees can have their roots protected from frost, by laying manure or long litter about them.

SOUTHERN CALENDAR FOR DECEMBER.

The closing month of this year is one in which every agriculturist should take an interest, and for many useful hints we will refer the reader to the northern calendar for this month.

Cotton-picking will probably occupy this month until Christmas, when this business will have been completed, if the culture has been well managed, and the season favorable. It would be well to start your plows and break up ground for corn; let nothing but cotton prevent—not even cleaning; for plowing is only one job; yet, if done soon, it is generally advantageous, and if bad weather should set in, when it must be done, time will be lost and a drawback ensue, whereas by plowing in time, cleaning can be done later.

In weather not employed about other labor more important, manure and trim all kinds of vines and fruit trees, except the orange tribe. Transplant evergreens and other trees, sweet briars, honeysuckles, jasmines, &c.; sow late peas and beans, and set out onions for seed; set all hands at work in cleaning up for other crops, picking up limbs, grubbing, cleaning up hollows, sides of bayous, cutting down cornstalks with hoes, gathering materials for making manure, &c., &c.

If you do not live in the immediate vicinity, say five or six miles, from a sugar plantation, by all means keep bees. This can be rendered one of the most productive branches of business of the day. Procure a few swarms at first, and they will soon multiply to any extent required. Use sections of hollow logs, four or five feet long, for hives, if you have no other more convenient materials to make them of, and allow the bees to work over the honey a second time, that you may avoid the injurious effects in eating honey which may have been gathered from poisonous flowers. If the above-named class of hives be used, there will be no necessity for killing the bees; for when the hives are filled with honey they can be removed without harm from the end opposite to that in which the bees are at work, and they will immediately go to work and fill the vacancy. In most part of the southern states bees may be kept at work during the winter. If there are not flowers for them, they can be made to work over the bad honey collected the season before.

This is also a busy month for the sugar-planter. He will be active in cutting and carting his cane with all possible despatch; and he should employ one or more practical and intelligent men to conduct the operations of the mill. In the manufacture of sugar, we know of no better method than that given by Professor Mapes in a letter to Hon. H. L. Ellsworth, from which we make the following extract:

1st. To cut the cane as ripe as possible; but before any acetic acid is formed; litmus paper, touched to the fresh-cut cane, will turn red if acid.

2d. Express the juice without loss of time, as every moment after cutting will deteriorate its quality.

3d. A small quantity of clear lime-water, say one quart to a hundred gallons of juice, should be added the moment it is expressed, unless the juice shows acidity with litmus paper; in that case, no lime should be used, but a solution of sal soda, or soda ash should be added, until it is precisely neutral.

4th. When the juice is neutral, free from excess of acid or alkali, it should be evaporated in such an apparatus as would finish its charge in 30 minutes; if the boiling power is too small, good crystallization can not possibly be obtained.

The whole time occupied from the cutting of the cane to finishing its boiling should not exceed one hour.

5th. To know when the boiling is finished, place a thermometer in the kettle, and continue to evaporate until it stands at 239° Fahrenheit. If, when placed to run off after cooling, it should be found too freely boiled, the next time boil to 240°, or, if too light to run off, to 238°, and so on.

6th. The kettle or boiler should be so arranged, that the moment it is done its charge should be thrown into a cooler, capable of holding a number of charges. The first charge should be left in the cooler without stirring, until the second charge is thrown in; then with an oar scrape the crystals found on the side and bottom of the cooler loose, and gently stir the whole mass together: the less stirred the better; so continue at the letting in of each charge, to stir gently; and when all is in the cooler, let the whole stand until it cools down to 175°; then fill out into sugar moulds of a capacity not less than 14 gallons. When cooled in the mould sufficiently, say fourteen hours, pull the plug out of the bottom of the mould, and insert a sharp point, nearly as large as the hole, some six inches; withdraw the point, and stand the mould on a pot to drip.

7th. If the sugar is intended to be brown, leaving it standing on the pot for a sufficient length of time, in a temperature of 80°, will run off its molasses and leave it in a merchantable shape; it will probably require twenty days. It can then be thrown out of the moulds, and will be fit for use. When moulds can not be obtained, conical vessels of wood or metal, with a hole at the apex, will answer equally well.

Conclusion.—At the close of the year many persons employ themselves in reviewing the events of the past—their acquirements—their well or ill-spent days—or their hours of idleness and inattention. Good resolutions for the future guidance naturally follow; and to such, kind reader, we most heartily join our warmest wishes for permanent success—trusting that each of you who thus have resolved, may go on, adding "flower to flower and knowledge to knowledge," until you blossom in the garden where no good resolutions are blasted, and where no flowers either wither or fade.

FOREIGN AGRICULTURAL NEWS.

By the steamship Britannia we are in receipt of our European journals to the 5th of November.

MARKETS.—*Ashes.* The business in Pots has been comparatively trifling the past month, though at a slightly advanced rate; Pearls have been brisk, and considerable transactions in them. *Cotton* remains the same as at our last, and the sales languid; if any change should take place, the market evidently portends a trifling reduction. Stock on hand at Liverpool, on the 1st of November, 854,000 bales, against 716,000 at same period last year. *Flour* has advanced 6d. per barrel. *Provisions.* American Beef is in great favor in England, 2,700 tierces having been sold the past month, an amount considerably greater than during any similar period since we commenced exportations. The stock on hand was light. We have only to exercise a little more care in cutting and putting up our beef, to monopolize the British market. Pork is less in demand. The reason of this simply is, our hogs packed for the English market are too large and too fat. They want nothing there to exceed 200 lbs. weight, and wish the fat on the sides well intermixed with lean, such as a partially fatted young Berkshire usually makes. *Lard* in good request, and has slightly advanced. *Tallow*, fair sales. *Cheese* is very active, the demand thus far exceeding the supply. *Kentucky Hemp* of a good quality is quoted at £27 ($131) per ton. *Indian Corn* 25s. per quarter (75 cents per bushel). *Rice* without change. *Turpentine*, an important advance. *Tobacco* dull.

Money was in more demand, and the rates of discount had advanced from 2½ to 3 per cent.

American Stocks. Nothing doing worthy of notice.

Trade was very active, the manufacturers having more orders for three months to come than they can supply.

The Weather for seed sowing was propitious, and it is anticipated that a greater breadth of wheat will be sown this year than ever yet known in the British isles. A good growth of aftermath had followed the excessive drought, which has lessened the price of hay.

Professor Liebig.—This distinguished chemist has been making another visit to Great Britain, and was hospitably received wherever he went. He made an admirable speech at a public dinner given him at Glasgow, and has now returned to Germany, the duties of his professorship forbidding a longer stay abroad. We wish he might be tempted to take a trip to the United States another year.

Smut in Wheat.—The opinion which now obtains is, that the disease is produced by the minute seeds of a parasitic fungus, which, being carried by the wind, enter the plant by the fine openings of the epidermis or outer skin, and are propelled by the rising juices to every part of it, and eventually convert the recently formed grain into a useless and injurious mass.

Prairie Roses.—This is a new group of climbing roses, which promises to be of much interest. Mr. Samuel Feast, of Baltimore, U. S., has had the pleasure of raising the abovenamed varieties from the seed of the single Michigan rose, rosa rubifolia; they are all of vigorous habits, making shoots in one season more than 12 feet in length. No. 3 is the most perfect and beautiful of the whole, giving clusters of flowers containing from twelve to twenty each; at first they are finely cupped; in a day or two they become imbricated, like those of the Duke of Devonsire. It seems to resist the hottest sunshine, and the flowers remain on the plant for a longer period than usual with any other rose: in wet weather, however, they are not at all bright in color, as was the case with some that bloomed the past summer; this has been named also Beauty of the Prairies. Rivers is that name given to it by Mr. Feast. No. 2 only occasionally gives autumnal flowers. No. 1, owing to most of the imported plants dying, is more scarce than the other varieties. All these roses are perfectly hardy; they will form fine pillars and pendulous standards.—*Catalogue of Selected Roses by T. Rivers.*

Von Thaer's celebrated System of Agriculture has been translated by Messrs. Shaw & Johnson, and will soon be issued from the London press.

Stock in Western Australia in 1842.—Horses, 1,096; horned cattle, 4,122; sheep, 60,380; goats, 5,613; swine, 1,913; English population, 3,649.

Horses for Germany.—Several large exportations have just been made to Germany, selected principally from Yorkshire.

Test for Sulphate of Ammonia.—Heat a piece of iron to a moderately red heat, and having placed upon it a small quantity of the sulphate of ammonia, if the same be genuine, it will immediately all volatilize; if not genuine, the impurities will remain. This simple method can be easily applied by every one, and will be the means of saving farmers from frauds.

Comparative Value of the Potato.—One hundred pounds of potatoes are equal, for nutriment, to:

	lbs.
Meat without bone,	25
Beans,	28
Wheaten Bread,	35
Parsnips and Carrots,	190
Turneps,	300
Cabbage,	400

The experiments of Berry & Herring establish the fact that 3 lbs. of potatoes are equal for nourishment to 12 ounces of bread and 5 ounces of meat.

Value of Irrigation.—A small field of poor and almost valueless land in Scotland being irrigated, the second year the burthen on an imperial acre being weighed, it was found to have yielded 9,680 lbs. of well dried hay.

Hints to Lovers of Flowers.—A most beautiful and easily attained show of evergreens in winter may be had by a very simple plan, which has been found to answer remarkably well on a small scale. If geranium branches are taken from healthy and luxuriant trees just before the winter sets in, cut as for slips, and immersed in soap and water, they will, after drooping for a few days, shed their leaves, put forth fresh ones, and continue in the finest vigor all the winter. By placing a number of bottles thus filled in flower baskets, with moss to conceal the bottles, a show of evergreens is easily ensured for a whole season. They require no fresh water.

Earliest Known Potatoes.—Mr. Sterling of Kenmure, Scotland, states, that seedling potatoes were raised by Gerard, the English botanist, in 1590. This is 20 years earlier than they were introduced into Ireland by Sir Walter Raleigh.

Chinese Poultry Yards.—Immense numbers of ducks are reared by that part of the Chinese population who spend their lives in boats upon the rivers; and these birds, salted and dried, form one of the chief articles of diet in the celestial land. They are kept in large cages or crates, from which, in the morning, they are sent forth to seek their food upon the river banks.

A Great Layer.—A small common hen, the property of Mr. Grierson, slater, Dunbar, has, from the commencement of the laying season last spring till the close of the present harvest, produced the wonderful number of two hundred and eight eggs.

Food Necessary to Supply the Waste in Animals.—Practice says that an ox requires 2 per cent. of his live weight in hay per day; if he works, he requires 2½ per cent.: a milch cow, 3 per cent.; a fatting ox, 5 per cent. at first, 4½ per cent. when half fat, and only 4 per cent. when fat; or 4½ on an average. Sheep grown up take 3½ per cent. of their weight in hay per day to keep in store condition; and growing animals should never be stinted. Science has ascertained, by the most carefully-conducted experiments, that a full-grown man voids, in his urine alone, about ½ oz. of nitrogen every 24 hours, and that a small quantity passes off in the solid excretions and by the skin. The carbon consumed by the lungs to keep up animal heat, averages about 11 ounces in the 24 hours; and the saline and earthy matter voided is in direct proportion to the amount taken in the food. It appears that the food consumed by an ox, horse, or sheep, is in direct proportion to their weights when compared with man. Hence we find that an ox would require, to replace the daily loss of muscular fibre, from 20 to 24 ounces of dry gluten or vegetable albumen, which would be supplied in

120 lbs. of turneps	17 lbs. of clover-hay
115 lbs. of wheat-straw	12 lbs. of pea-straw
75 lbs. of carrots	12 lbs. of barley
67 lbs. of potatoes	10 lbs. of oats
20 lbs. of meadow-hay	5 lbs. of beans.

The consumption of carbon by a cow amounts to 70 ounces; and that of a horse to 89 ounces on an average in 24 hours, which is supplied by the starch, gum, and sugar of the food consumed. Fatty matter is required to supply the fat of the animal, and this also exists more or less abundantly in all vegetable food. Earthy phosphates and saline substances are found in the inorganic portion of all vegetables, and these supply the daily waste of bone, &c., of the body. Hence we see that the animal requires a variety of substances, all of which exist in greater or less abundance in its daily food.

Table showing the relative value of different articles of food, as ascertained by practice; good meadow hay being taken at 100.

Hay,	100	Carrots,	250 to 300
Clover hay,	80 to 100	Turneps,	500
Green clover,	450 to 500	Cabbage,	200 to 300
Wheat straw,	400 to 500	Peas and beans,	30 to 50
Barley straw,	200 to 400	Wheat,	50 to 60
Oat straw,	200 to 400	Barley,	50 to 60
Pea straw,	100 to 150	Oats,	40 to 70
Potatoes,	200	Indian corn,	50
Old potatoes,	400	Oil cake,	20 to 40

The above table represents the average results from a number of experiments made in France and Holland.

The two paragraphs above, are selected from a lecture read before the Gloucester Farmers' Club by Mr. Gyde.

To Preserve Grapes, &c.—Procure some tin cases of any convenient size, and put in a layer of dry sand or charcoal and then a bunch of grapes, until the case is full; seal down the lid and make all air tight, and bury them to any convenient depth in the ground. This plan will likewise answer for late cherries, plums, gooseberries, currants, &c. These fruits in some gardens are retarded in their time of ripening, by being covered with mats or nets, which is an excellent plan, and ought to be more generally adopted, as it insures a succession. Grapes, peaches, and apricots, in the open air, may be kept for some time hanging on the trees after they are ripe, by the same means, but their flavor will not be good. Red and white currants, in the same manner, will even keep good till the end of December. Ice-houses have been recommended for preserving fruits; but they are objectionable, on account of the damp moisture which they contain. A dry, cool, and airy room, free from all atmospheric changes, is the only place where fruits can be preserved for any length of time.

Shell Fruit, as walnuts, nuts, chesnuts, &c., may be preserved for a year or two by being divested of their outer shell, and thoroughly dried. In jars, or tin cases, put in a layer of charcoal or dry sand, then a layer of nuts. Proceed in this way until they are full, properly securing each lid, to prevent the admission of air; when finished, bury them in the open ground, or in some cool and dry cellar.—*Gardener's Chronicle.*

Extraordinary Production of Peas.—In the course of last week, as I was taking in some peas for seed, curiosity induced me to count the number produced from several peas separately; and among others, I give you the following as a sample:—I found one pea had produced 94 pods, containing altogether 344 peas; another 99 pods, containing 368 peas; a third had produced 102 pods, containing 418 peas; and a fifth had produced 105 pods, containing altogether 432 peas. The lengths of the haulm, measured from the ground upward, are as follow—first, 2 ft. 2 in.; second, 2 ft. 10 in.; third, 2 ft. 6 in.; and fourth, 3 ft.

Extraordinary Produce.—A few days since, Mr. Jackson, of Borwick Hall, was in a field of barley on his farm, when he found a single barley-corn which had thrown up seventeen stems, on which were no fewer than 550 corns! The field was thinly sowed where this plant grew.—*New Farmers' Journal.*

To Increase the Scent of Mignionette.—Keep it from flowering for a year, and it becomes a shrubby plant and perennial; it is also much more powerful as to scent.—*Ib.*

Pea 3000 Years Old.—Mr. Grimstone, of the Highgote Herbary, has succeeded in rearing peas from an Egyptian pea found in a vase in a mummy tomb, probably 3,000 years old! He says of it: This pea stems right and left, the mother stems being very strong, so that I should imagine them capable of standing without the use of sticks. This pea is in height about three feet, being fourteen inches from left to right; its tendrils are wiry, and of sufficient strength to keep each other in a standing position when planted in high rows. Its principle in bearing is curious, having its pod only on one side, so that it appears something like a grape-vine in miniature.—*Ib.*

Wash for Sunburns and Chilblains.—A small portion of honey mixed with lukewarm water, and allowed to cool, makes an excellent wash for sunburns and chilblains.—*Ib.*

A Grain Reaping, Threshing, and Winnowing Machine, which performs the whole of these operations together, has lately been invented in South Australia. It is said to perform well at the rate of an acre an hour, and requires only two men and two horses to attend it.

This is rather too good a story to be true, for it is quite impossible that so much machinery as these united operations require, could be successfully moved with so little power.

Fat and Muscle.—An admirable article on the causes which appear to determine the production of fat and muscle respectively, according to the present state of our knowledge of animal physiology, may be found in the fifth volume of the Royal Agricultural Society Journal, just issued. It is a prize essay by the veterinary surgeon, W. F. Karkeek, and is well worthy the study of all engaged in breeding domestic animals.

Average Product of Wheat in England.—The Quarterly Review estimates this at 26 bushels per acre.

Editor's Table.

German Method of Making Flowers Grow in the Winter.—We saw off such a branch of any shrub as will answer our purpose, and then lay it for an hour or two in a running stream, if we can find one. The object of this is to get the ice from the bark, and soften the buds. It is afterward carried into our warm rooms and fixed upright in a wooden box or tub containing water. Fresh burnt lime is then added to the water and allowed to remain in it about twelve hours, when it is removed, and water added, with which a small quantity of vitriol is mixed to prevent its putrifying. In the course of some hours the blossoms begin to make their appearance, and afterward the leaves. If more lime be added, the process is quickened, while if it be not used at all, the process is retarded and the leaves appear before the blossom.—*Farmers' Gazette.*

Production of Hemp.—In 1841 and 1842, the entire receipts of hemp at New Orleans were only 1211 bales; in 1842 and 1843 they rose to 15,000 bales, and in 1843 and 1844 they reached 38,000 bales, or about 5,000 tons—the increase being almost exclusively from Illinois and Missouri. It will not be long before hemp, and also wool, will become important articles of export.

Exportation of Indian Corn.—We learn that the quantity of Indian corn shipped from this port to England during the first eight months of 1844, was 190,000 bushels. Same months in 1843, only 35,000 bushels.

To Destroy the Curculio.—A correspondent of the Cincinnati Horticultural Society says, that the experiment of saturating the bark of the plum tree "for a short distance" with spirits of turpentine, and tying a rag dipped therein around the tree, has been found to protect the fruit completely from the ravages of the curculio, when all other plums not so protected were destroyed.—*Dollar Farmer.*

To Make Yellow Butter in Winter.—Put in yolk of eggs just before the butter comes, near the termination of the churning. This has been repeatedly tried, and it makes very fine sweet butter. It is kept by many as a great secret, but its great value requires publicity.—*Boston Cultivator.*

Heavy Yield of Wheat.—Mr. James M. Underwood, of the town of Middlesex, in this county, cut fifty-two bushels and fifty-six pounds of wheat upon one acre of ground, selected from about thirty, which he thinks will yield nearly the same amount.—*Pen Yan Democrat.*

To Preserve Butter without Salting.—The Arabs melt their butter over a slow fire, which expels all the watery particles; it will then keep without salt; and the Irish have adopted, with success, a similar mode for exportation to the East Indies.—*South Western Farm.*

Linseed Oil.—The Cincinnati Gazette states, that there are five linseed oil mills in that city, and another one in the course of erection. They are capable of making, in the aggregate, 900 gallons of oil per day. Cincinnati supplies the whole west, including New Orleans and Mobile, with the article. The manufacture of linseed oil for export is a new business in the west. It is only a few years since it was obtained from the east in large quantities, for western consumption.

Clay on Trees.—Mr. Timothy Hill of Wrentham, who has much experience in grafting and in nursing trees, tells us he finds clay an excellent article to apply to the bodies of apple-trees after scraping off the moss and the rough bark; he prefers this to a wash with potash water.

He also says he has killed all the lice, called aphides, that are so very troublesome on the extremities of young trees, by one application of clay. We hope our friends in great numbers will make trial of this remedy, as ley can not be used on the tender twigs and leaves of trees.—*Mass. Plowman.*

We can not see how clay can be applied to the tender twig either, without great labor and perhaps some injury.

Medical Power of Ash.—It is known to some of our readers that liquor from white ash bark is used for sheep that have been poisoned by eating lambs-bane. Mr. Adam Capen of Stoughton, tells us there are on his farm two kinds of white ash nearly resembling each other. That the bark of one is valuable, and the liquor from it is certain cure for poisoned sheep; while the bark of the other is worthless. Will some of our readers give us a hint on this subject, and a description of the true medical kind?—*Ib.*

Biography of an Extraordinary Porker.—We give below from the New England Farmer an extract from a report of the committee on swine at the late meeting of the Essex Agricultural Society. We presume it is from the pen of the chairman, F. Poole, Esq. If the tribe of *sus aper* don't get immortalized, it will not be for want of comic humor in the histories and descriptions of him by the wits of old Massachusetts. It is apparent now that the lamented Lincoln left his mantle behind him.

"Linn, too, has her share of swinish honors, derived from the extraordinary merits of a single individual of the race, of whom the committee have it in their power to present a biographical sketch. We are indebted to Mr. John Alley 3d, under whose patronage this individual was reared and educated, for some particulars of his life.

"Of his origin we know but little, except that he was the *son* of his *mother*, who died suddenly when he was a few months old and left him an early orphan. He became remarkable for his rapid growth and the excellence of his appetite, and soon arrived at that middle age of swinehood when his porkship appeared a living epitome of good nature and good living. He continued to expand in size until he became a Daniel Lambert of the race, and possessed *great weight* in swinish society. He was a *solid* character, and his specific *gravity* was only equalled by the *gravity* of his demeanor: indeed, there was nothing waggish about him—but his *tail.* He now became a worthy member of the I. O. of Fat Fellows, and attained to their highest degree. His corpulency prevented him from travelling, and although he had never been to *roam* (Rome), he was familiar with the rich stores of ancient and modern *Grease.* The state of the money market gave him no concern, and he cared little for the rise and fall of *stocks*—except *corn-stalks*, which he always appeared anxious to *get down.* He early acquired a disgust for party politics, by observing the greediness with which some partisans have thrust their snouts into the public swill pail. He even thought that some aspiring individuals had much better have a sty in their eye than the White House at Washington. In his political views there seemed to be something like inconsistency. He was in favor of protection, and was a ravenous advocate of home consumption. He also favored large corporations, and at the same time was a strong advocate of retrenchment, and delighted in cutting down *celleries.* He never was a candidate for any public station, and it is believed that his modesty would have prevented him from accepting the offer of any office, from that of Committee on Swine down to the President of the United States.

"Notwithstanding he was ten feet *long*, from extremity to extremity, the event proved he was not *long* for this world, and in his last extremity no friend was found

to save him from the hand of the assassin. He was rapidly increasing in size until the time of his departure, which was in November last, at the age of two years and six months. At the post mortem examination of his remains, it was found that his enormous bulk had reached the weight of more than *twelve hundred pounds!* What prodigality of fatness was there! What a mass-meeting of pork concentrated in a single individual! The county of Essex challenges the world to produce his equal. Mr. Alley informed us, with apparent sincerity, that he subsisted mainly on raw Indian meal and potatoes—but the committee had supposed it more likely that he lived on green turtle soup and pound cake, with an occasional meal of boiled salmon and canvass back ducks."

Great Yield of Onions.—Barnabas Hall, Esq., of Dennis, has raised from little more than five rods of land, 47½ bushels of onions—all of them large enough to make a person cry. This is at the rate of 1,500 bushels per acre.—*Yarmouth Register.*

Great Yield of Potatoes.—Mr. Thacher Clark of Dennis, has raised the present year, from one rod of ground, six bushels of potatoes, being at the rate of 960 bushels to the acre. Two potatoes of the size of a hen's egg were placed in each hill. One of the hills produced one half a bushel of potatoes—one potato weighed 2¼ lbs., and another 2 lbs. 3 ozs. Pretty fair for Cape Cod sand.—*Ib.*

Great Yield of Cranberries.—The same paper above asserts that cranberries have been grown the present year by Mr. Lovell, in small patches of a few square rods, on land which, ten years ago, was a barren waste. We wish Mr. L. would give us the particulars of his treatment of this land, and how he has made it produce such large crops of cranberries.

Eclectic Magazine; published by Leavitt, Trow, & Co., 194 Broadway. It gives us great pleasure to commend this excellent work, for we know of none other at all equal to it in the value and variety of its selections. No person who has a desire to keep up with the foreign literature of the day can dispense with the Eclectic Magazine; and it will be found of more interest to our readers in consequence of occasional agricultural articles made up in its miscellany. Perhaps we can not do greater justice to its merits than copying the following reasons from its Prospectus why its should be preferred: 1. It is the *cheapest* Periodical, in its price. 2. It is now the *only Monthly* of Foreign Literature. 3. Its Engravings, by Sartain, are exquisite, and superior to any others—*worth the price of the work.* 4. It is *well established*, and beyond all rivalry in its line. 5. It surveys the field of *German and French*, as well as English Periodical Literature, and *selects* from all. 6. It is *elevated and dignified* in its character. 7. It contains, for six dollars a year, or five dollars *in advance*, current funds, remitted to the publishers free of expense or postage, *all the best* articles from *the four Quarterlies*, together with choice matter from the Magazines and Papers. 8. It is printed on *fair paper*, and in type that will *not injure the eyes.* 9. It commends itself to all *persons of taste*, and is represented by good judges, to be "*the best periodical in the world.*" 10. The public *ought* to support a work of this description, in order to supplant the trash of the day.

European Agriculture and Rural Economy, from Personal Observation, by Henry Colman, Vol. I., Part II. Published by Arthur D. Phelps, Boston, Mass.; Wiley & Putnam, London, England. Saxton & Miles, 205 Broadway, New York, special agents. Subscription price $5, of which $2 is payable on the delivery of Part I. To be completed in ten Parts. The content of Part II. are:

XIII. Allotment System (continued).
XIV. Quantity of Seed.
XV. Steeping Seeds.
XVI. Spade Husbandry.
XVII. Condition of the Laborers.
XVIII. Progress of Agriculture, compared with other Pursuits.
XIX. Actual Improvements in English Agriculture, including under this head: 1. Draining, Irrigation, and Warping. 2. Live Stock and Vegetables. 3. Agricultural Implements. 4. Application of Steam to Agriculture. 5. Increased Production. 6. Royal Agricultural Society. 7. Agricultural Society of Scotland.
XX. Relation of Landlord and Tenant.
XXI. Game and the Game Laws.
XXII. The Royal Agricultural Society of Ireland.
XXIII. Model Farm and Agricultural School.
XXIV. Dublin Botanical Garden.

In the second Part of his European Agriculture, Mr. Colman has taken up more particularly the subject of practical farming, and proves conclusively, not only greater returns, but a *greater profit* from land placed under a high state of rotatory cultivation; and the examples he gives to substantiate his assertions, are not from the practice of the large farmer and the rich, but from the humbler class, and more especially those cultivating after the best directions of science, from only one to five acres; thus showing that improvement may be made and wealth gained, even by the poorest in means and possessions. We recommend the Allotment System, as detailed by Mr. Colman, to the earnest study of our own farmers, as concerning them more than anything else yet published in his Survey, saving the Model Farm and Agricultural School in the vicinity of Dublin, Ireland. We think in this his second issue, Mr. Colman has made a valuable contribution to agricultural literature, and we regret that we can not now give some extracts from it. We hope, however, that the public will seek them in the work itself, resting assured that it will be no less gratified than instructed in the perusal thereof.

The American Poulterer's Companion.—A practical treatise on the breeding, rearing, fattening, and general management of the various species of domestic poultry; with illustrations and portraits of fowls, taken from life; by C. N. Bement; Saxton & Miles, publishers, 205 Broadway, N. Y.; pp. 379. Price, $1 25. We are glad at length to be able to announce this excellent work, which has been delayed some time passing through the press, from the unusual care bestowed in engraving the illustrations. These are upward of seventy in number, and our readers can judge of their elegant finish and general truthfulness and beauty, from the specimens given from it in our columns in the three preceding numbers of this periodical. Mr. Bement has been a great poultry-fancier for years, and has devoted much time to the breeding, rearing, and diseases of the different varieties of the domesticated feathered race. His book details his knowledge on this interesting subject thus practically acquired; it may therefore be taken as a safe guide in all these matters, and more especially as it is adapted to our own country and its wants; thus making it emphatically *the* American Poulterer's Companion. Mr. Bement has treated the subject in a lively, agreeable style, and the publishers have issued it in the handsomest style of paper and typography. We are persuaded that the value of its contents, and general beauty of its appearance, will ensure it a deserved popularity with all who take any interest in breeding and rearing poultry.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, NOVEMBER 27, 1844.

ASHES, Pots,	per 100 lbs.	$4 00	to	$4 06
Pearls,	do.	4 25	"	4 31
BACON SIDES, Smoked,	per lb.	3½	"	4½
In pickle	do.	3	"	4
BALE ROPE	do.	6	"	9
BARK, Quercitron	per ton	24 00	"	25 00
BARLEY	per bush.	59	"	61
BEANS, White	do.	1 25	"	1 75
BEEF, Mess	per bbl.	5 00	"	7 00
Prime	do.	3 00	"	5 00
Smoked	per lb.	5	"	7
Rounds, in pickle	do.	3	"	5
BEESWAX, Am. Yellow	do.	28	"	31
BOLT ROPE	do.	12	"	13
BRISTLES, American	do.	25	"	65
BUTTER, Table	do.	15	"	18
Shipping	do.	8	"	12
CANDLES, Mould, Tallow	do.	9	"	12
Sperm	do.	28	"	38
Stearic	do.	20	"	25
CHEESE	do.	3	"	7
CLOVER SEED	per lb.	6½	"	8
COAL, Anthracite	2000 lbs.	5 00	"	6 00
CORDAGE, American	per lb.	11	"	12
CORN, Northern	per bush.	52	"	54
Southern	do.	49	"	52
COTTON	per lb.	4	"	8
COTTON BAGGING, Amer. hemp	per yard.	16	"	18
American Flax	do.	16	"	17
FEATHERS	per lb.	28	"	32
FLAX, American	do.	8	"	8½
FLAX SEED, rough	per 7 bush.	9 00	"	9 75
clean	do.	10 00	"	10 50
FLOUR, Northern and Western	per bbl.	4 50	"	4 88
Fancy	do.	5 00	"	5 38
Southern	per bbl.	4 50	"	4 88
Richmond City Mills	do.	5 50	"	5 75
Rye	do.	3 25	"	3 50
HAMS, Smoked	per lb.	5	"	10
Pickled	do.	4	"	7
HAY	per 100 lbs.	40	"	45
HIDES, Dry Southern	per lb.	9	"	11
HEMP, Russia, clean	per ton.	170 00	"	175 00
American, water-rotted	do.	105 00	"	165 00
do dew-rotted	do.	75 00	"	125 00
HOPS	per lb.	13	"	15
HORNS	per 100	1 25	"	5 00
LARD	per lb.	5½	"	6½
LEAD	do.	3½	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn	per bbl.	2 44	"	2 75
Corn	per hhd.	12 00	"	12 25
MOLASSES, New Orleans	per gal.	27	"	30
MUSTARD, American	per lb.	16	"	31
OATS, Northern	per bush.	35	"	36
Southern	do.	29	"	31
OIL, Linseed, American	per gal.	68	"	70
Castor	do.	75	"	80
Lard	do.	59	"	65
OIL CAKE	per 100 lbs.	1 00	"	— —
PEAS, Field.	per bush.	1 25	"	— —
PITCH	per bbl.	88	"	1 00
PLASTER OF PARIS	per ton.	2 62	"	2 75
Ground, in bbls. of 350 lbs	per cwt.	1 12	"	— —
PORK, Mess	per bbl.	8 25	"	10 00
Prime	do.	6 50	"	8 12
RICE	per 100 lbs.	3 19	"	3 62
ROSIN	per bbl.	58	"	75
RYE	per bush.	68	"	69
SALT	per sack	1 30	"	1 40
Common,	per bushel	23	"	30
SHOULDERS, Smoked	per lb.	4	"	6
Pickled	do.	3	"	4
SODA, Ash, cont'g 80 per cent. soda,	per lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SPIRITS TURPENTINE, Southern	per gal.	35	"	38
SUGAR, New Orleans	per lb.	5	"	8
SUMAC, American	per ton	25 00	"	27 50
TALLOW	per lb.	6½	"	8
TAR	per bbl.	1 81	"	1 94
TIMOTHY SEED	per 7 bush.	10 00	"	12 00
TOBACCO	per lb.	2½	"	6
TURPENTINE	per bbl.	2 25	"	2 75
WHEAT, Western	per bush.	95	"	1 03
Southern	do.	95	"	1 00
WHISKEY, American	per gal.	24	"	25
WOOL, Saxony	per lb.	45	"	65
Merino	do.	40	"	50
Half-blood	do.	30	"	35
Common	do.	25	"	30

New York Cattle Market—Nov. 25.

At market, 1360 Beef Cattle (100 from the south), 50 Cows and Calves, and 3000 Sheep and Lambs.

PRICES.—*Beef Cattle* are well sustained, and we quote firm at $4 25 *a* 4 75 to $5 25 *a* 5 75, and $6 for very choice.

Cows and Calves—Sales at $18 *a* $30.

Sheep and Lambs are a little cheaper. We quote sheep at $1 25 *a* $3 50 and Lambs 87 cents *a* $1 50.

Hay—50 *a* 67½ for best quality of loose.

REMARKS.—*Ashes* in fair demand *Cotton* is steady, and the daily transactions of considerable extent. Export from the United States since 1st September last, 203,485 bales; same time last year, 89,425; same time year before, 158, 869. *Flour* is firm, and large exports from this city—15,084 barrels from 1st to 26th inst. The exports from Canada, principally to Great Britain, *a considerable portion the produce of the western states* show that from the 1st of January up to the 1st of August, this season, they amounted to 307,000 barrels flour, and 237,000 bushels wheat—exports the same period last season were only 50,000 barrels flour and 15,000 bushels wheat! We think it a misfortune to both countries that the trade can not be direct. *Hogs.* The opening price this year at Cincinnati—the great pork mart—ranges from $2 50 to $3 00 for small choice lots. Buyers are operating very moderately at these rates, thinking them too high. The farmers on the other hand contend that hogs are not as abundant this year as common, and corn is unusually high and scarce, owing to the great floods of the past season. *Sugar* is heavy, with a downward tendency. The crop in Louisiana was never anything like so large. It is supposed that it will reach from 180,000 to 200,000 hogsheads. The cane is well ripened, and the weather favorable for cutting and grinding. *Tobacco* is in fair request. *Wool* somewhat depressed. We think, however, it will soon recover last September prices.

Money.—A little flurry has taken place this month in the money market, owing to some specie going abroad, and a greater call for discounts. The banks immediately took advantage of these things, and put up the interest to 6 and 7 per cent. As there are plenty of bills now offering to be drawn against cotton and other produce going forward, we are of the opinion that the exportation of specie must stop. But whether it does or not, having imported $23,000,000 last year, the country has plenty to spare. In consequence of the uncertainty of the present tariff being sustained by the dominant political party just coming into power, many orders have been countermanded, buildings in contemplation stopped, and a slight check given to business in general. This, we think, can not last long, and we doubt whether there will be any material change in the policy of the country. The effect of this check, however, will probably make money less in demand for the coming six months, and bring it down again soon to 4½ and 5 per cent. in the cities—in the country it will doubtless continue to rule at legal rates.

Stocks. These have undergone a slight depression, but are gradually returning again to old prices. There was no good reason why they should retrograde.

The Weather up to November 24th was mild with considerable rain. It then set in sufficiently cold for three days to freeze the ground slightly, but is now mild again with a southwest wind.

TO CORRESPONDENTS.—On account of the long index to be made out this month for the whole volume, we were obliged to set up matter for the present No. unusually early; this has left out several interesting communications, which otherwise would have appeared herein. We have no farther room for acknowledgments, and bring our remarks to a close, by assuring our readers that they may expect a rich No. for January, and that this periodical throughout the coming year will be better sustained than ever, and give a greater variety of interesting and instructive matter.

LINNÆAN BOTANIC GARDEN AND NURSERY—Late PRINCE'S.

FLUSHING, L. I., NEAR NEW YORK.

The new Descriptive and unrivalled Catalogue, not only of FRUIT, but also of ORNAMENTAL TREES, SHRUBS, and PLANTS, cultivated and for sale, *at reduced prices*, at this ancient and celebrated Nursery, (*the* IDENTICAL *premises known as* PRINCE'S, *and by the above title for nearly fifty years,*)

☞With directions for their Culture,

may be had *gratis* on application by mail, *post paid*, to the NEW PROPRIETORS, who will endeavor to merit the CONFIDENCE and PATRONAGE of the Public, by INTEGRITY and LIBERALITY in dealing, and MODERATION in charges.

WINTER & Co., Proprietors

Flushing, Aug. 31, 1844.

AGENTS FOR THE AMERICAN AGRICULTURIST.

Israel E. James is our agent for the Southern and South Western States and Florida, assisted by James K. Whipple, Wm. H Weld, O. H. P. Stem, John B. Weld, B. B. Hussey, and Allen E. Brooks.

PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed agent in this city for the sale of the celebrated Premium Plows, made by Ruggles, Nourse, & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern farmer and Southern planter, and embrace the following varieties:—

PLOWS.	Description.	Plain.	W. or C.	W. & C.	Moulds	Lands.	Points.
Cotton or Rice Plow	6 inch.	$3 50			$1 12	$0 25	$0 25
do. do.	7 do.	4 00			1 17	33	25
Furrowing	Double Mould,	4 00			1 17		33
Garden	No. A 1,	4 00			1 17		33
Light Horse	No. A 2,	5 00			1 35	50	42
Seed	No. A 3,	7 00			1 50	67	50
Horse	No. 1 B,	6 50			2 00	75	50
Stubble	No. 2 B.	7 50			2 25	92	50
Two Horse	Eagle No. 1.	6 00			2 00	92	50
Light Break-up	" No. 2.	6 00			2 00	92	50
do. do.	" Cont.	10 00			2 50	1 00	58
Heavy Break-up	No. 3. Imp.	9 50			3 00	1 00	63
do. do.	" No. 4. "	10 00			3 00	1 00	67
do. do.	Sward B.	10 00			3 00	1 00	67
do. do.	" D Coulter,	12 00			3 25	1 13	67
Breaking up	" C,	9 00			3 25	1 13	63
Light Horse	No. 0, Side Hill,	5 00			1 25	75	33
Two Horse	No. A 1, S. Hill,	9 00			3 00	1 00	63
Three Horse	No. A 2, S. Hill,	11 00			3 25	1 25	67
Road	No. A 3, S. Hill,	13 00			3 75	1 25	67
Large Road	No. A 4, S. Hill,	15 00			4 00	1 25	67
Rice	Trenching Plow,	6 00			2 00	92	50
One Horse	Subsoil, No. 0,	6 00			2 00	92	50
do. do.	" No. 1,	8 00			2 50	1 00	58
Two Horse	" No. 2,	10 00			3 00	1 00	63
Heavy do. do.			with Draft Rod,				
do. do.			do.				

"Plain," at the top of the third column, means the plow without wheel or coulter. "W." in the fourth and fifth columns, means wheel. "C," coulter or cutter. "Moulds and Lands," mould-board or land-side. "Points." are the extreme ends of the plowshare attached with bolts. These can be instantly replaced by new ones when worn out. The wheel adds greatly to the ease of draught, and should always be ordered for the larger plows, say from No. A. 3, down, whether for the South or the North. Coulters are only necessary to cut through the sod and render it easy to turn over while breaking up green sward land, and of course are scarcely wanted South. Extra moulds and lands are not often wanted. Two extra points should always accompany each plow.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. They are especially liked at the south, and though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved that a single pair of good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind.

A. B. ALLEN, 205 Broadway, N. Y.

IMPERIAL OATS.

The subscriber is just in receipt of a few barrels of the above superior oats—price $3 50 per barrel, delivered on board vessel. If two or more barrels are taken, a deduction will be made of ten per cent. The imperial oats are considered the best kind now cultivated, having less husk about them than any other known. Their weight is from 40 to 44 lbs. per bushel.

A. B. ALLEN, 205 Broadway, N. Y.

THE AMERICAN AGRICULTURIST.

Published Monthly, each number containing 32 pages, royal octavo.

TERMS—One Dollar per year in advance; single numbers, Ten Cents; three copies for Two Dollars; eight copies for Five Dollars.

Each number of the Agriculturist contains but One sheet, subject to newspaper postage only, which is *one cent* in the State, or within 100 miles of its publication, and *one and a half cents*, if over 100 miles, without the State.

ADVERTISEMENTS will be inserted at One Dollar, if not exceeding twelve lines, and in the same proportion, if exceeding that number.

☞ *Remit through Postmasters, as the law allows.*

Editors of Newspapers noticing the numbers of this work monthly, or advertising it, will be furnished a copy gratis, upon sending such notice to this Office.

Volume I. and II. of THE AMERICAN AGRICULTURIST, with tables of contents complete, for sale at $1,00 each; elegantly bound in cloth, $1,25. These are handsome, tasteful books, and make very desirable premiums for distribution with Agricultural Societies, and should also find place in all our District School Libraries. They constitute the best and most complete treatise on American farming, stock-breeding, and horticulture, extant. When several copies are ordered, a liberal discount will be made.

LECTURES ON AGRICULTURE.

Dr. Gardner will commence his annual course of Popular Lectures on the Applications of Science to the Practice of Agriculture, in the chemical lecture room of the UNIVERSITY OF NEW YORK, on Wednesday evening, the 4th of December, at half past 7 o'clock. The Introductory Lecture is open to all the friends of agriculture. Subject: *A Plant agriculturally considered.* The course will consist of fifteen or sixteen lectures—fee $5. During the winter the subjects of the rotation of crops, composting, economy of fodders, causes of exhaustion, nature of smut and similar diseases, and other important questions, will be fully considered. The course is intended for practical men and students in agriculture.

PRINCE'S LINNÆAN BOTANIC GARDEN AND NURSERIES,

FLUSHING, L. I., NEAR NEW YORK.

William R. Prince & Co.'s new descriptive catalogues of Fruit and Ornamental Trees and Plants (34th edition) with prices much below those usually charged, and comprising additions of above 500 select varieties of fruits, and 1200 varieties of ornamental trees, shrubs, and roses, but few of which are contained in any other American nursery, will be sent to every post-paid applicant. The cost of the present edition is above $700, and it is the most complete ever published.

Also, Prince's Treatise on Fruits, $2 00, and on the Vine, $1 50, and on Roses, 50 cents. Orders left at 23 Pine street, or per mail, will be executed in a superior manner, and forwarded as ordered. WM. R. PRINCE & CO.

Flushing, October, 1844.

DURHAM CATTLE FOR SALE.

One or two cows, 3 years old, in calf by the Duke of Wellington, and two heifers, in calf by the prize bull Meteor; also, a superior bull calf got by Meteor, for sale at reasonable prices. Letters post paid will receive a prompt answer.

GEORGE VAIL.

Troy, 19th Oct., 1844.

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